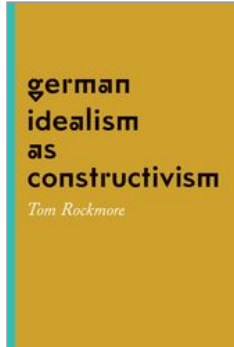


**german  
idealism  
as  
constructivism**

*Tom Rockmore*

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### German Idealism as Constructivism

Tom Rockmore

Print publication date: 2016

Print ISBN-13: 9780226349909

Published to Chicago Scholarship Online: January 2017

DOI: 10.7208/chicago/9780226350073.001.0001

### Title Pages

**(p.i)** German Idealism as Constructivism **(p.ii)**

**(p.iii)** German Idealism as Constructivism

The University of Chicago Press CHICAGO & LONDON

**(p.iv)** TOM ROCKMORE is the Distinguished Humanities Chair Professor and professor of philosophy in the Institute of Foreign Philosophy at the Peking University and was formerly a McNulty College Distinguished Professor at Duquesne University. He is the author of numerous books, including *Kant and Phenomenology* and *Art and Truth after Plato*, both published by the University of Chicago Press.

The University of Chicago Press, Chicago 60637

The University of Chicago Press, Ltd., London

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Printed in the United States of America

25 24 23 22 21 20 19 18 17 16 1 2 3 4 5

ISBN-13: 978-0-226-34990-9 (cloth)

ISBN-13: 978-0-226-35007-3 (e-book)

DOI: 10.7208/chicago/9780226350073.001.0001

Library of Congress Cataloging-in-Publication Data

Names: Rockmore, Tom, 1942- author.

Title: German idealism as constructivism/Tom Rockmore.

Description: Chicago ; London: The University of Chicago Press, 2016. |

Includes

bibliographical references and index.

Identifiers: LCCN 2015036804 | ISBN 9780226349909 (cloth: alk. paper) | ISBN 9780226350073 (e-book)

Subjects: LCSH: Idealism, German. | Philosophy, German.

Classification: LCC B2745 .R63 2016 | DDC 141.0943— dc23 LC record available at

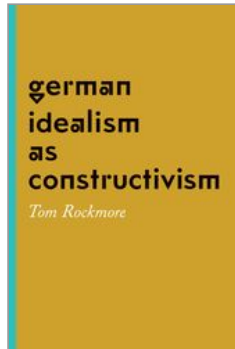
<http://lcn.loc.gov/2015036804>



This paper meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper).

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Epigraph

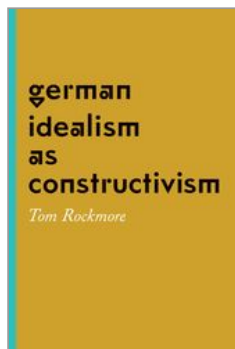
**(p.v)** Das Absolute selbst aber ist darum die Identität der Identität und Nichtidentität;

Entgegengesetzten und Einssein ist zugleich in ihm.

—G . W. F. HEGEL, *Differenzschrift* **(p.vi)**

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### (p.ix) Abbreviations

Works frequently cited are noted in the text and are identified by the following abbreviations:

A:

G. E. Schulze. *Aenesidemus oder über die Fundamente der von den Herrn Professor Reinhold in Jena gelieferten Elementar-Philosophie. Nebst einer Vertheidigung des Skepticismus gegen die Anmassungen der Vernunftkritik*. 1792. Reprinted edition edited by Arthur Liebert. Berlin: Verlag von Reuther und Reichard, 1911.

C P R:

Immanuel Kant. *Critique of Pure Reason*. Translated and edited by Paul Guyer and Allen W. Wood. New York: Cambridge University Press, 1998.

D:

G. W. F. Hegel. *The Difference between Fichte's and Schelling's System of Philosophy*. Translated and edited by H. S. Harris and Walter Cerf. Albany: State University of New York Press, 1977.

E L:

G. W. F. Hegel. *Encyclopedia of the Philosophical Sciences in Basic Outline: Part 1: Logic*. Translated by Klaus Brinkmann and Daniel O. Dahlstrom. New York: Cambridge University Press, 2010.

F K:

G. W. F. Hegel. *Faith and Knowledge*. Translated and edited by Walter Cerf and H. S. Harris. Albany: State University of New York Press, 1977.

P N:

G. W. F. Hegel. *Hegel's Philosophy of Nature*. Translated by A. V. Miller. Oxford: Clarendon Press, 1970.

S K:

J. G. Fichte. *The Science of Knowledge with the First and Second Introductions*. Edited and translated by Peter Heath and John Lachs. New York: Cambridge University Press, 1982.

## Abbreviations

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S T I:

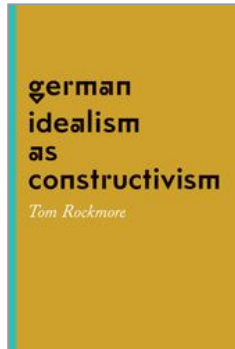
**(p.x)** F. W. J. Schelling. *System of Transcendental Idealism*. Translated by Peter Heath, with an introduction by Michael Vater. Charlottesville: University Press of Virginia, 1978.

W L:

J. G. Fichte. *The Science of Knowledge (Wissenschaftslehre)*. Translated and edited by Peter Heath and John Lachs. New York: Cambridge University Press, 1982.

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DOI: 10.7208/chicago/9780226350073.001.0001

## Kant and Cognitive Constructivism

Tom Rockmore

DOI:10.7208/chicago/9780226350073.003.0001

### [–] Abstract and Keywords

Important thinkers are understood only gradually, often over a long period; in extreme cases, after hundreds of years. The abundant debate around Kant and the post-Kantian German idealists, which has waxed and waned over many years, long ago assumed enormous proportions with little or no sign of agreement about even the main points, other than that these thinkers are influential and important. What if, after roughly two centuries of intensive effort, we still do not understand Kant, or, as a consequence, post-Kantian German idealism, or even German idealism?...

Important thinkers are understood only gradually, often over a long period; in extreme cases, after hundreds of years. The abundant debate around Kant and the post-Kantian German idealists, which has waxed and waned over many years, long ago assumed enormous proportions with little or no sign of agreement about even the main points, other than that these thinkers are influential and important. What if, after roughly two centuries of intensive effort, we still do not understand Kant, or, as a consequence, post-Kantian German idealism, or even German idealism?

This book proposes a reading of Kant's critical philosophy as well as post-Kantian German idealism, hence German idealism, as a single ongoing philosophical debate including Kant as well as reactions to the critical philosophy centering on cognitive constructivism. I will be seeking to understand cognitive constructivism in both a wide and in a narrow sense. Understood broadly, it includes various aspects of German idealist epistemology. From a narrower perspective, it refers to a specific strategy for cognition running throughout German idealism.

Since I do not intend to write the history of German idealist theory of knowledge, even in outline, the discussion will concentrate on a connected account of some main points in the theories of the four thinkers (Kant, Fichte, Schelling, and Hegel) usually taken to be the main German idealists, as well as selected other figures (e.g., Reinhold, Maimon, and Schulze) who, though not German idealists as “idealism” is usually understood, contribute to the debate. Thus I will not discuss either Marx or Schopenhauer, two thinkers one **(p.2)** might certainly include in a wider account. Marxists routinely describe Marx as a materialist. But through his commitment to cognitive constructivism, he has a claim to belong to German idealism.<sup>1</sup> Schopenhauer, an important critic of Kant, is sometimes described as indispensable to understand the critical philosophy, but is not crucial to this discussion.<sup>2</sup>

It is not surprising that “idealism” is central to grasping the critical philosophy, post-Kantian German idealism, and German idealism. The idealist theme was already raised in the infamous Garve-Feder review (1782) of the *Critique of Pure Reason*, which made the proper understanding of the relationship of the critical philosophy to Berkeleian idealism central to the evaluation of Kant’s position. After Hegel died, the rise of neo-Kantianism suggested the interest of a qualified return to Kant after post-Kantian idealism. It is well known that Marxism and Anglo-American analytic philosophy both emerged in revolting against idealism. Marxism since Engels has never varied from an approach to Marx through the supposed but largely fictitious rejection of Hegelian idealism, which, through its proposed inversion, was allegedly transformed into materialism.

The two perhaps most interesting lines of interpretation of Kant that emerged in the twentieth century both reject idealism in reading the critical philosophy. According to Heidegger—who casts himself in the role of Kant’s only legitimate heir, and in that way disqualifies post-Kantian German idealism—his own ontological phenomenology carries the critical philosophy beyond Kant.<sup>3</sup> If that were the case, then the critical philosophy would not be centrally concerned with cognition but rather with phenomenological ontology. Yet Heideggerian phenomenology, which pretends to grasp things themselves from the perspective of being as such, is clearly incompatible with the critical philosophy, which explicitly interdicts such knowledge.

Idealism has been anathema for Anglo-American analytic philosophy since its inception in England at the beginning of the twentieth century. The steady analytic rejection of idealism is paradoxically combined with an increasing interest in German idealist thinkers—particularly Kant, but also Hegel. A straight line leads from Moore, who maintains that idealism in all its many forms rejects the existence of an external world, to Strawson’s interpretation of the critical philosophy without idealism, in short as a form of empirical realism anticipating analytic philosophy.

A number of recent contributions to German idealism raise the question of who is a German idealist. According to Horstmann, “German idealism means the effort to establish a monistic form of idealism in reaction to Kant and whose main figures are Kant, Fichte, Schelling and Hegel.”<sup>4</sup> Others contest **(p.3)** this view. Beiser thinks Kant and Fichte are idealists, but that Schelling and Hegel are romantics.<sup>5</sup> This claim simplifies “idealism” since the field is suddenly reduced to only Kant and Fichte. But interpretation of this tendency also becomes more difficult since the Copernican revolution—which Kant formulated as a solution for the cognitive problem, and which is arguably the central philosophical insight in this period—is no longer relevant. Pinkard believes that Schelling and Reinhold are romantics.<sup>6</sup> Yet Franks, who denies that Kant is



an idealist, holds that German idealism arises in the post-Kantian reaction only through Reinhold.<sup>7</sup> Redding, on the contrary, formulates an account of German idealism beginning earlier with Leibniz.<sup>8</sup>

Schelling's relation to idealism and to German idealism is especially problematic. Hegel's former roommate, who is often supposed to have left idealism behind in later writings, inconsistently depicts his later position as the later development and completion of German idealism. This claim is accepted by Heidegger,<sup>9</sup> formulated in detail by Schulze,<sup>10</sup> and echoed by Beiser as well as Gabriel<sup>11</sup> and perhaps others who think the peak of German idealism occurs in the later Schelling.

At the present time, interpretation of Kant and post-Kantian German idealism—hence of German idealism—is in disarray. It is arguable that, despite the massive scholarship deployed, we still lack a plausible account of the relation of Kant's position to idealism as well as its relationship to post-Kantian idealism; that is, a conception of German idealism in which there is space for the critical philosophy as well as post-Kantian German idealism. I believe that the key to the critical philosophy as well as post-Kantian German idealism, hence to German idealism, lies in grasping idealism as a cognitive approach that arises in Kant and continues in the views of his post-Kantian German idealist successors. In making a case for idealism as a central theme linking the views of the main German idealists, I will be following two hints in Kant's writings: his celebrated remarks about Copernicus as well as his important reference to Plato.

Kant gives us not only the theory but also a meta-theory about how to interpret the critical philosophy. He famously indicates the need to interpret his position according to the idea of the whole. But what is the idea of the whole concerning the critical philosophy? After more than two centuries of intensive effort, it seems clear that the debate has not so far produced any agreement about even the main features of the critical philosophy. There seems to be agreement only that Kant is a singularly important thinker, but none about the details of the critical philosophy, and none even about its central thread, or the so-called idea of the whole.

**(p.4)** There are important references to Hume, Wolff, Leibniz, Plato, and others in Kant's texts. Kant indicates that the main defect in Wolff is that he is a dogmatic, hence precritical thinker. But how—other than the claim to be critical—could the critical philosophy be read through Wolff's position? Kant famously claims that Hume awoke him from his dogmatic slumber. Certainly he devotes space and effort to answering Hume by formulating a new conception of causality. Yet an account of causality is only a piece of the puzzle of what he refers to as the future science of metaphysics.

Another approach is suggested by the important remark on Plato (*CPR*, B 370, pp. 395–96), in which Kant discusses the possibility of understanding a thinker better than he understands himself. This comment helps us see the critical philosophy as Kant's response to a specific formulation of the cognitive problem in Platonic terms, or at least against a Platonic background to which the critical philosophy can be understood as a response.

Kant's reaction to Plato can usefully be raised in terms of realism, which has long driven the cognitive debate. Realism is an ontological theme central for Western epistemology. All conceptions of knowledge are realist, and hence lay claim to grasp the real or reality, however understood. Realism, which comes in different flavors, includes artistic, social, scientific, metaphysical, and other varieties. Metaphysical realism can be informally defined as any version of the claim that to know means to grasp the mind-independent world as it. Metaphysical realists

believe there is a way the world is and that we can accept as our standard nothing less than a cognitive grasp of the real. This view apparently appears for the first time in the Western philosophical tradition in Parmenides's poem. At B 8.34, in writing "to gar auto noein estin kai einai,"<sup>12</sup> he points toward what later becomes metaphysical realism in opting for identity as the standard of knowledge.

In considering the Parmenidean thesis, I will be uninterested in related themes—such as the problem of non-being, whether or not he is an idealist in a recognizably modern sense, whether there is idealism before, say, Descartes, and so on<sup>13</sup>—in focusing on the substantive epistemic criterion I see as providing a central impulse to the later cognitive debate.<sup>14</sup>

The problem of translation is obviously crucial. According to Burnyeat, Parmenides's fragment should be read as holding that thought of an object requires an object, which therefore exists. "But the fragment (frag. 3) which was once believed, by Berkeley among others (Siris §309), to say that to think and to be are one and the same is rather to be construed as saying, on the contrary, that it is one and the same thing which is there for us to think of and is there to be: thought requires an object, distinct from itself, and that **(p.5)** object, Parmenides argues, must actually exist."<sup>15</sup> Russell holds a similar view. "When you think, you think *of* something; when you use a name, it must be the name *of* something. Therefore both thought and language require objects outside themselves. And since you can think of a thing or speak of it at one time as well as another, whatever can be thought of or spoken of must exist at all times. Consequently there can be no change, since change consists in things coming into being or ceasing to be."<sup>16</sup>

The Parmenidean statement has been extremely influential. Hegel explicitly takes over the view that the so-called unity of thinking and being is the identity of thought and being in formulating the identity thesis central to German idealism.<sup>17</sup> I come back to that thesis below.

Various types of identity can be distinguished. Frege stresses semantic identity in claiming that the morning star and the evening star have different meanings but the same reference. Recent analytic naturalism routinely employs a naturalistic approach to the philosophy of mind. Its central thesis, which was apparently pioneered by U. T. Place and J. J. C. Smart, is the claim—which is clearly related to physicalism, and which goes back at least to Spinoza—that mental events and brain events are identical. There has also been recent attention to difference—for instance, in Deleuze's effort to invert the relation between identity and difference, in understanding difference as prior to identity<sup>18</sup>—which has been criticized as incoherent.<sup>19</sup>

"Numerical identity" is the sense in which a given thing is self-identical. For instance, the feather pen Krug employed to criticize Hegel is in this sense identical to his writing instrument. "Qualitative identity," which refers to the way in which two or more things share a property, is illustrated in the notorious Platonic theory of forms (or ideas). "Identity in difference," which is neither numerical nor qualitative, is a metaphysical relation brought about by the subject in creating a unity between itself and the object it "constructs." An obvious example is the view that artists express themselves in their art. Artistic self-expression can be interpreted in two related senses. What is known as artistic self-expression is nothing other than the idea that the objet d'art that comes into being as a physically distinct object in the manifestation of an individual's artistic capacities. An artist's intention and the realized object are two aspects of one and the same thing, so to speak.

The Parmenidean view of the identity of thought and being implies three related claims: first, the world is a certain way, which in turn implies reality is; second, there is difference since the way the world is, is in fact different from and independent of the observer;<sup>20</sup> and third, to know requires us to know the way the mind-independent world is.

**(p.6)** In different ways this Parmenidean view echoes through the tradition in the form of an identity in difference of thought and being. Much later in the German idealist tradition, this Parmenidean identity becomes “the identity of identity and difference.” Thought and being are obviously not the same, since being (or what is) is independent of thought about it. But from the Parmenidean perspective, “to know” means that “thought grasps mind-independent being.” Since, according to Parmenides, cognition depends on an identity of thought and being, we can infer that a necessary condition of cognition is an identity of thought and being. This point can perhaps be stated more precisely as the identity of thought that grasps and hence cognizes mind-independent being, as well as being that differs from thought, or difference.

The identity of identity and difference, which is identified with German idealism, becomes explicit only at the time of Hegel. Yet it is at least implicit throughout the Western philosophical debate on knowledge since the early Greek tradition. It is featured, for instance, in metaphysical realism, which echoes through the entire Western tradition up to the present day. The claim to know is routinely understood as a claim to grasp not what one thinks is the case, but rather what in fact really is. Since Western philosophy originated in ancient Greece, it has steadily examined different cognitive strategies for what is now called metaphysical realism. The history of the philosophical debate on knowledge consists of a long, varied, often highly ingenious series of efforts to demonstrate the claim to know the mind-independent world. Yet other views of knowledge—including those that restrict cognitive claims merely to phenomena, and which are featured throughout German idealism—simply give up any form of the ancient effort to know reality while maintaining the claim for the identity of identity and difference.

Kant’s approach to cognition resembles—but crucially diverges from—the Platonic approach, which is in turn determined by Plato’s reaction to Parmenides. We do not know and cannot now recover Plato’s position, if he has one in a recognizably modern sense. He clearly says different things about knowledge in different dialogues, and it may not be possible to synthesize his different insights into a single theory. Platonism, the generic position that is often attributed to Plato in the debate, seems to include two main points: ontological dualism, or a distinction between the worlds of appearance and reality; and the notorious theory of forms. Plato is widely believed to be interested in, but not to accept any known version of the theory of forms, which he also criticizes, especially in *Parmenides* but elsewhere as well. According to the theory of forms, individual objects depend on, or participate in, forms, but no cognitive inference is possible from appearance to reality. The *Republic* suggests we **(p.7)** cannot correctly represent reality, which on grounds of nature-and-nurture some among us can allegedly directly intuit.

Though he denies representation, Plato allows intellectual intuition of reality. As concerns knowledge, there is a crucial difference between Kant and Plato in that the former (like Plato) denies representation but (unlike Plato) also denies intellectual (or cognitive) intuition. If there are two main cognitive strategies and neither is possible, then Kant’s refutation of both approaches suggests we cannot know mind-independent reality. His brilliant solution consists in the constructivist claim that we can claim to know only what we in some sense “construct.”

This line of argument suggests the need when interpreting Kant—but also German idealism as a whole—to focus on the often mentioned but little understood and rarely analyzed Copernican revolution as well as on Kant’s view of representation.<sup>21</sup> Since representation is prominent in the *Critique of Pure Reason*, as well as in the famous Herz letter, the critical philosophy is sometimes described as representationalist. On the contrary, Kant’s Copernican revolution is precisely justified because representation fails as a cognitive approach.

In simplest terms, Kant’s formulation of the cognitive problem includes at least three assumptions about the identity and viability of the main cognitive strategies: first, the two main approaches to cognition are intellectual intuition, or intellectual intuitionism, and representation, or representationalism; second, representationalism, the main modern approach to cognition—which is often ascribed to Kant, but which he rejects—is an unacceptable strategy, since it is not possible to represent the mind-independent external world, or reality; and, third, since it is not possible for human beings to intuit reality, intuitionism is also an unacceptable cognitive strategy. Kant’s proposed solution lies in his so-called Copernican revolution. The Copernican revolution is a constructivist approach to cognition, which encompasses mathematics (especially geometry), natural science, and modern theory of knowledge. This thesis emerges in ancient Greek geometry in the construction of geometrical figures with a straightedge and compass. For instance, the class of isosceles triangles can be said to exist if a single instance can be constructed.<sup>22</sup>

“Constructivism,” which is understood in many ways, refers to art, architecture, psychology, pedagogy, and philosophy.<sup>23</sup> As used here, this term will refer only to the problem of cognition (*das Erkenntnisproblem*, from *erkennen*). Since constructivism is not a theory but rather a cognitive approach, it is—not surprisingly—understood in many different ways. A short, incomplete list of recent constructivist thinkers might include such American pragmatists as Peirce and Dewey, but probably not James; then Bachelard; perhaps (p.8) Feyerabend, Morin, Piaget, Rawls; supposedly Rorty; Vygotsky; the later Wittgenstein; and more recently Glasersfeld, Kincheloe, Korsgaard, Kuhn, Kukla, Lektorsky, Luhmann, Margolis, Rescher, Searle, Watzlawick, and so on. Different observers distinguish different forms of constructivism both within as well as outside of philosophy in such fields as ethics and philosophy of science, and further in psychology, sociology, biology, and so on. This incomplete list points toward, but does not argue for, the importance of a constructivist approach to cognition.

This study presupposes that the constructivist approach to cognition deriving from the Copernican revolution is central to German idealism, including Kant and the post-Kantian German idealists. The first chapter, entitled “Kant, Idealism, and German Idealism,” offers a broad account of Kant’s Copernican revolution in the context of the critical philosophy. It begins with an examination of a representationalist strategy for knowledge as well as the so-called double aspect thesis. According to this thesis, which is influential in the current Kant debate, the cognitive object as experienced and known—or, on the contrary, as merely thought but neither experienced nor known—are two aspects of the same thing. The chapter argues that Kant correctly rejects both approaches to cognition. It turns next to the Kantian Copernican revolution, including its interpretation, as well as to Kant’s reading of the relation of Copernicus to the new science, especially to Newton. The account of Kant’s view of Newton, whose theory Kant supposedly grounds in the critical philosophy, is important in itself and as a counterpoint to Hegel’s very different reading of Newtonian mechanics. “The Transcendental Deduction” is often understood as central to the *Critique of Pure Reason*. Interpretation of the Kantian

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Copernican revolution, which is often mentioned but not often studied in detail, is followed by an account of the transcendental deduction as not only a deduction of the categories, but above all as a constructivist approach to cognition.

A number of non-idealist thinkers are important in the transition from Kantian idealism to post-Kantian German idealism. The second chapter, “Reinhold, Maimon, and Schulze,” considers three such philosophers in this transition. Reinhold is less important for his own views than as the first thinker to restate the critical philosophy. Though on the view I will be presenting here he is not an idealist, he opens the way to post-Kantian German idealism. He is also influential to Fichte and Hegel. It has recently been suggested that German idealism originates in Reinhold’s position—more precisely, in his brand of cognitive foundationalism. I argue on the contrary that Reinhold’s foundationalist restatement of the critical philosophy is incompatible with Kant’s critical philosophy, hence incompatible with German idealism. Maimon, whose (p.9) reading of the critical philosophy was accepted by Kant, criticizes Reinhold’s foundationalism, and influences Fichte and Hegel. Under the pseudonym Aenesidemus, Schulze is important for Fichte’s transcendental philosophy.

Chapter 3, “Fichte’s Transcendental Philosophy, the Subject, and Circularity,” focuses on Fichte’s rethinking of the concept of the subject, and, as a result, ontology and cognition from a fully subject-centered perspective. The result is to remove the ambiguity in the critical philosophy about the status of the noumenon, or mind-independent real, which Kant inconsistently describes as uncognizable but as also indispensable for cognition. Fichte reacts to Kant in rethinking the conception of the subject. The resultant shift to cognitive explanation from the perspective of subjectivity is intended to ameliorate problems in the critical philosophy, but leads to difficulties about objective cognition. The chapter also treats the Fichtean link to the two aspects thesis in his “Deduction of Representation.” I show that Fichte states this representational approach to knowledge while denying its validity in a constructivist approach to cognition.

The fourth chapter is entitled “Schelling, the Philosophy of Nature, and Constructivism.” Schelling, even more than Reinhold, is a protean thinker. But like Reinhold, Schelling’s relationship to German idealism remains unclear. Though he began as a self-professed Fichtean disciple, Schelling later turned against Fichte and then Hegel. The chapter examines Schelling’s dualistic effort, in his Fichtean phase, to supplement transcendental philosophy through philosophy of nature, as well his later break with idealism following the publication of his *System of Transcendental Idealism*. Accounts of Schelling’s constructivist account of the absolute and his philosophy of art are followed by examination of Schelling’s conceptions of philosophical construction and identity. It is often suggested that Schelling began as an idealist but later—say, after the *Freiheitsschrift*, moved beyond it. I argue that Schelling was in a sense never a German idealist, since his Spinozistic view of identity is different from and incompatible with the idealist thesis of identity in difference.

My approach to German idealism as a series of efforts by different hands to perfect constructivism loosely follows Hegel’s view of the German idealist tradition. “Hegel, Identity, and Constructivism,” the fifth chapter, examines the relationship of Hegel—beginning in the so-called *Differenzschrift*, his first philosophical publication—to Kant, Fichte and Schelling, his great idealist predecessors. Hegel’s approach to cognition emerges in the *Differenzschrift* and then progresses in the *Phenomenology*, in the *Encyclopedia*, and in the logical writings. The chapter analyzes Hegel’s rereading of speculative philosophy in Kant, Fichte, and Schelling, as

well as Hegel's response to Reinhold **(p.10)** through a circular approach to cognitive justification in the *Differenzschrift*. I further discuss the emergence of Hegel's constructivist theory of cognition in the *Phenomenology* as well as its application in his *Philosophy of Nature*. The chapter finally considers Hegel's understanding of the link between dialectical logic and cognitive constructivism in both the smaller and greater *Logics*.

German idealism has now receded into history. In part its legacy lives on in cognitive constructivism, which begins before and continues after it. The sixth chapter, "Cognitive Constructivism after German Idealism," considers this approach as an alternative to more familiar intuitive and representational approaches to cognition. These other approaches may be better known; however, I contend that cognitive constructivism remains more promising. A full treatment lies beyond the limits of the present discussion, but this final chapter sketches the kind of argument one might provide.

### Notes:

(1.) Marxian constructivism is not often discussed. For his understanding of his relation to Vico, the Italian constructivist, see Karl Marx, *Capital: A Critique of Political Economy*, vol. 1, trans. Samuel Moore and Edward Aveling, ed. Frederick Engels (New York: International Publishers, 1975), p. 372n3.

(2.) According to Kelly, we must read Kant through Schopenhauer: "[A] short exposition of Transcendental Idealism with Schopenhauer's constructive and destructive criticism may be of use to those that cannot make a simultaneous study of Kant and Schopenhauer in the original. To think that the former [Kant] can be understood without the latter [Schopenhauer] is a fatal delusion. If anybody should doubt this, let him try to make out what Kant meant by the 'Schematismus,' and he will soon find it advisable to avail himself of the assistance of a man who is worth ten times more than all the post-Kantian philosophers and professors put together." Michael Kelly, *Kant's Philosophy as Rectified by Schopenhauer* (London: Swan Sonnenschein, 1909), p. 8.

(3.) See Martin Heidegger, *Kant and the Problem of Metaphysics*, trans. Richard Taft (Bloomington: Indiana University Press, 1997), §41, pp. 170–173.

(4.) See Rolf-Peter Horstmann, who writes: "Hier setzte ich voraus, dass sich leicht Einverständnis darüber erzielen lässt, dass es sich bei dem Terminus 'Deutscher Idealismus' um einen Klassifikationsbegriff handelt, der eine Anzahl philosophischer Positionen umfasst, von denen gilt, dass sie im Ausgang und in der Reaktion hauptsächlich auf die Kantische Philosophie einen sog. 'idealistischen Monismus' zu etablieren versucht haben, und als deren Hauptexponenten aus mehr oder weniger guten Gründen Fichte, Schelling und Hegel angesehen werden." Rolf-Peter Horstmann, "Zur Aktualität des Deutschen Idealismus," *Neue Philosophische Hefte* 35 (1995): p. 3.

(5.) "The young romantics—Hölderlin, Schelling, and Hegel, Novalis, Schlegel, and Hülsen—were deeply impressed by Fichte, whose lectures some of them attended in Jena in 1795." Karl Ameriks, ed., *Cambridge Companion to German Idealism* (New York: Cambridge University Press, 2000), p. 31.

(6.) See Terry Pinkard, *German Philosophy 1760–1860: The Legacy of Idealism* (New York: Cambridge: Cambridge University Press, 2002).

(7.) See Paul W. Franks, *All or Nothing: Systematicity, Transcendental Arguments, and Skepticism in German Idealism* (Cambridge: Harvard University Press, 2005).

(8.) See Paul Redding, *Continental Idealism: Leibniz to Nietzsche* (London and New York: Routledge, 2009).

(9.) According to Heidegger, Schelling is single most important post-Kantian German idealist: “the truly creative and boldest thinker of this whole age of German philosophy. He is that to such an extent that he drives German Idealism from within right past its own fundamental position.” Martin Heidegger, *Schelling’s Treatise on the Essence of Human Freedom*, trans. Joan Stambaugh (Athens: Ohio University Press, 1985), p. 4. Views about the importance of this text vary widely. According to Hans Urs von Balthasar, it is “the most titanic work of German idealism.” Hans Urs von Balthasar, *Prometheus: Studien zur Geschichte des deutschen Idealismus* (Heidelberg: Kerle, 1947), p. 240.

(10.) See Walter Schulz, *Die Vollendung des Deutschen Idealismus in der Spätphilosophie Schellings* (Stuttgart: Kohlhammer, 1955).

(11.) Gabriel, who thinks that the later Schelling is the peak of German idealism, makes this claim because of the latter’s development of a theory of being, though this Heideggerian approach is clearly not central to German idealism as such. See Markus Gabriel, *Transcendental Ontology: Essays in German Idealism* (New York: Continuum, 2011).

(12.) DK 28 B 3 Clem. Alex. *Strom.* 440, 12; Plot. *Enn.* 5, 1, 8.

(13.) For the claim that idealism did not exist before Descartes, see M. F. Burnyeat, “Idealism and Greek Philosophy: What Descartes Saw and Berkeley Missed,” *Philosophical Review* 91, no. 1: pp. 3–40. For a critique of Burnyeat’s thesis, see Darren Hibbs, “On the Possibility of Pre-Cartesian Idealism,” *Dialogue* 48, no. 3 (September 2009): pp. 643–653.

(14.) For a brief account of some of the surrounding difficulties—including the question of how to translate the relevant fragments—see Jeremy Dunham, Iain Hamilton Grant, and Sean Watson, *Idealism: The History of a Philosophy* (Montreal: McGill-Queen’s University Press, 2012), pp. 13–18.

(15.) See Myles Burnyeat, *Explorations in Ancient and Modern Philosophy*, vol. 1 (Cambridge: Cambridge University Press, 2012), p. 255.

(16.) Bertrand Russell, *A History of Western Philosophy* (New York: Simon and Schuster, 1945), p. 49.

(17.) See G. W. F. Hegel, *Hegel-Werke*, vol. 18, ed. Eva Moldenhauer and K. R. Michel (Frankfurt am Main: Suhrkamp, 1986), p. 314.

(18.) See Gilles Deleuze, *Différence et répétition* (Paris: Presses universitaires de France, 1988).

(19.) According to Descombes, this view is self-contradictory. See Vincent Descombes, *Le même et l’autre: Quarante-cinq ans de philosophie française (1933–1978)* (Paris: Editions de Minuit, 1979).

(20.) In his account of identity, Heidegger seems to follow Schelling in overlooking difference. See “The Principle of Identity,” in Martin Heidegger, *Identity and Difference*, trans. Joan Stambaugh (Chicago: University of Chicago Press, 2002), pp. 23–42.

(21.) The most detailed account of the Copernican revolution comes to the conclusion that there is no relation to the critical philosophy. See “What Is Copernican in Kant’s Turning?” in Hans Blumenberg, *The Genesis of the Copernican World*, trans. Robert M. Wallace (Cambridge, MA: MIT Press, 1987), pp. 595–614.

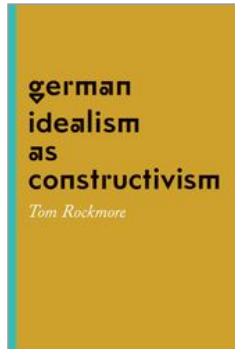
(22.) Mathematical constructivism takes a different form in the twentieth century in intuitionist mathematics. See, for example, Morris Kline, *Mathematics: The Loss of Certainty* (New York: Oxford University Press, 1965), pp. 238–241.

(23.) See, for example, J.-L. Le Moigne, *Les épistémologies constructivistes* (Paris: Que saisje?, 2007); *Einführung in den Konstruktivismus: Beiträge von Heinz von Foerster, Ernst von Glasersfeld, Peter M. Hejl, Siegfried J. Schmidt, and Paul Watzlawick* (Munich: Piper Verlag, 1992); and Bernhard Pörksen, ed., *Schlüsselwerke des Konstruktivismus* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2011).



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### German Idealism as Constructivism

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Print publication date: 2016

Print ISBN-13: 9780226349909

Published to Chicago Scholarship Online: January 2017

DOI: 10.7208/chicago/9780226350073.001.0001

### Kant, Idealism, and Cognitive Constructivism

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DOI:10.7208/chicago/9780226350073.003.0002

#### Abstract and Keywords

This study presupposes that the constructivist approach to cognition deriving from the Copernican revolution is central to German idealism, including Kant and the post-Kantian German idealists. The first chapter, entitled “Kant, idealism and German idealism,” offers a broad account of Kant’s Copernican revolution in the context of the critical philosophy.

**Keywords:** Immanuel Kant, idealism, German idealism, Copernican revolution, representationalism, Critique of Pure Reason

Kant, who is clearly one of the several most important Western philosophers, discusses an astonishing range of topics. I will be primarily focusing on his solution to the cognitive problem. Though Kant is not well read in the history of philosophy, he is often understood, as he explicitly suggests, as responding to Hume, but also to others—for instance, Wolff and Leibniz. Kant is also often believed to synthesize empiricism and rationalism in the critical philosophy. I do not want to deny such ways of considering Kant against the historical background, but rather to add to them. I think Kant should also be seen as responding if not to Plato, at least to Platonism. The Platonic element in the critical philosophy is sometimes discussed with respect to Kant’s moral theory.<sup>1</sup> I believe that Platonism is central as well to Kant’s theory of cognition. It is then not by accident that the critical philosophy provides a Platonic formulation of the cognitive problem. In short, as Kant reads Plato—or, if there is a difference, Platonism—the latter provides a problem to which the Copernican turn proposes a solution.

After extensive debate, there is still no agreement about even the main lines of the critical philosophy. My interpretation of the critical philosophy is based on a reconstruction of the relationship between Parmenides, Plato, and Kant. Plato takes over the Parmenidean view that there is a way the mind-independent world (or reality) is, and that a claim to know requires an

identity of identity and difference—or in other words, the Parmenidean claim for an identity between thought and being. Since this is not a treatise on Plato, it is not necessary to discuss his writings in detail. Suffice it to say that Plato's cognitive solution consists in three points: first, he invokes an ontological difference between appearance and reality; second, he denies the reverse inference **(p.12)** from appearance to reality, or, in more modern language, from effect to cause, in disqualifying any form of the familiar representational approach to cognition; and, third, he rejects the Platonic view that philosophers can intuit reality.

Kant's approach to the problem of knowledge closely follows the Platonic view in invoking an ontological dualism, in his case between appearances and noumena (or things in themselves), two synonymous terms that refer to mind-independent reality. He assumes that, as in Plato's day, there are still only two main approaches to knowledge: cognitive intuition and cognitive representation. He further follows Plato in rejecting cognitive representation; unlike Plato, he also refuses cognitive intuition, which he denies to human beings, hence denying we can know reality.

Kant's proposed solution is the so-called Copernican turn, or the view that we can claim to know only what we in some sense construct. This solution follows the Platonic way of framing the cognitive problem in suggesting that, though we cannot know the mind-independent world, we do know appearances. Copernicanism, which takes its name from the view of the Polish astronomer, is a heliocentric astronomical approach that goes back to ancient Greek cosmological speculation. Heliocentrism was anticipated, for instance, in ancient Greece by Aristarchos of Samos. In the B preface to the *Critique of Pure Reason*, Kant calls attention to Copernicanism in further implying that the critical philosophy is a form of cognitive constructivism. Kantian constructivism is often mentioned but only rarely studied in any detail. If the critical philosophy is cognitively constructivist, then Kant—who has been studied as much if not more than anyone else in the modern tradition—is paradoxically still not well known.

### On Interpreting the Critical Philosophy

I intend to interpret Kant's critical philosophy as constructivist for the obvious reason that Kant himself calls attention to the relation between his position and Copernicanism. If Copernicanism is constructivist and if the critical philosophy is Copernican, then it is also constructivist. Kant initially favors representationalism before turning to constructivism. Though early and late he consistently employs representationalist vocabulary, constructivism and representationalism are mutually exclusive epistemic strategies.

In different ways, constructivism runs throughout the critical philosophy. Kant takes a constructivist approach to morality,<sup>2</sup> aesthetics, and cognition. His moral and his aesthetic theories both require the subject to ascertain a universal principle. According to Kant, a necessary condition of morality is for the moral **(p.13)** subject to identify a universalizable maxim to guide moral action. Similarly, on the basis of taste, the aesthetic subject must infer a universal rule from the singular aesthetic object in a judgment of beauty at least in principle acceptable to all observers. If Kantian moral theory is constructivist, then so is his aesthetic theory.

I will be concentrating on Kant's cognitive constructivism, which precedes his moral and aesthetic constructivism. It is not easy to interpret Kant's concept of cognition, which is increasingly obscured by an enormous and rapidly growing debate. Kant provides a theory as well as a meta-theory about how to interpret the critical philosophy. He also provides a series of conflicting indications in his writings. Kant, who is a hermeneutical holist, rejects interpretation based on passages torn out of context in favor of interpretation through the idea of the whole (*CPR*, B xlv, p. 123). Yet there has never been any agreement about how to identify the idea of the whole of the critical philosophy or even its central theme, idea, or insight. Conflicting indications in the texts perhaps reflect Kant's own indecision about the nature of his project. Readings of the critical philosophy tend to follow Kant's hints that it is representational, often without any clear indication of what that entails. Does Kant think we can successfully represent, hence know the mind-external world? Or does he merely believe we can know that it exists? The difference is important and Kant's view of the matter is unclear.

In rejecting a representational approach in favor of a constructivist reading of the critical philosophy, I will be arguing against specific indications in Kant's own writings. His understanding of his central problem in the so-called critical period is simply but misleadingly stated in his famous letter to Herz. Here he formulates the cognitive problem in representational language by pointing to the relation of the representation (*Vorstellung*) to what is represented in asking the question: "What is the ground of the relation of that in us which we call 'representation' to the object [*Gegenstand*]?"<sup>3</sup> which motivates what in the first *Critique* became the initial and most important statement of his critical philosophy. This representational formulation suggests his position should be understood as still another form of the causal theory of perception that dominated early modern philosophy at the time Kant was active and which remains dominant. Yet the Herz letter is misleading if Kant later changed his mind in opting for constructivism instead of representationalism.

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### The Representational Approach to Knowledge

It is difficult to determine Kant's precise view of cognition. There are at least four possibilities. As concerns cognition, he could be either a representationalist, a constructivist, inconsistently favor one or the other approach, or again reject **(p.14)** all these possibilities. He sometimes seems to favor representation; he also insists on a constructivist approach in passages about the Copernican revolution and elsewhere. It is possible that Kant, who often seems to hesitate between alternative solutions, is simultaneously attracted to different possibilities. Though the texts are unclear, probably the best way of reading the different things he says about cognition is through a later turn, sometime after he composed the Herz letter, away from representationalism to constructivism.

Kant intervenes in the late-eighteenth-century debate, which is dominated by a causal theory of perception, hence by cognitive representationalism. Kantian representationalism carries this epistemic approach to a high point—never later surpassed—while revealing its limits. If Kant had done nothing else, then since (as he points out) representationalism fails, he would probably be known as another in a long line of causal theorists of perception widely scattered through modern philosophy.

"Representation," which means many different things in different contexts, takes on many artistic, political, psychological, mathematical, and other subforms. The term suggests an approach to cognition in which something—the representation—stands in for, takes the place of, and also points beyond itself to something else, which is said in this way to be represented. As a cognitive strategy, "representation" is understood in different ways. Thomas-Fogiel, who follows Marin, distinguishes four views of representation.<sup>4</sup> These views include (1) to re-present or to reflect; (2) presence and absence; (3) the substitution of one thing for another; (4) to outline or trace the contours of something in according it visual form. To represent by re-presenting or reflecting something is the basis of the familiar reflection theory of knowledge—a staple of Marxism since Engels and officially adopted by Lenin, and which probably originates in book 10 of the *Republic* at 596D, where Socrates talks about carrying a mirror around with him.

What is representation? Plato and then later Locke and other modern thinkers take opposing views. We cannot know Plato's view, if he had one. In the well-known theory of forms, which is often ascribed to him, Plato seems to identify forms (or ideas) and the real (or reality). According to the theory of forms, things are appearances that imitate, or participate in, concepts or mind-independent reality, which can only be known through cognitive intuition, hence directly. Plato's rejection of the very idea of appearances as knowledge motivates his attack on artistic imitation as cognition, leading to his refusal of art and art objects of all kinds. The Platonic attack on representation is strongly contested in modern philosophy. The post-Platonic debate on representation as well as the later development of aesthetics can be reconstructed as a series **(p.15)** of efforts to rehabilitate representationalism against Plato's rejection of representation as well as his attack on art and art objects of the most varied kinds.

An anti-Platonic approach to knowledge through representation is extremely widespread in the seventeenth century—that is, prior to the emergence of the critical philosophy. Cognitive representationalism links together such different cognitive strategies as rationalism (which considers the conditions of knowledge) and empiricism (which focuses on human knowledge). In modern times, a representational approach to cognition often relies on the canonical distinction between primary and secondary qualities drawn by Galileo, Descartes, and especially Locke. Representation is routinely identified with such sources as Locke, British empiricism, and the Port Royal School.<sup>5</sup> According to the traditional interpretation, Locke is an externalist, not an

internalist.<sup>6</sup> For Locke as well as many modern thinkers, ideas in the mind are caused by, and hence refer to, the external world. Locke's statement "Whatever the mind perceives in itself, or as the immediate object of perception, thought or understanding, that I call idea"<sup>7</sup> underlies his conviction that we know the world through ideas that represent it. His anti-Platonic approach to cognitive representation is hugely influential in the modern tradition. The so-called *Port Royal Logic* proposes a theory of signs that link the represented thing and its representation.

Kant famously calls attention to Hume as awakening him from his dogmatic slumber. The view that Hume's influence is pervasive in the critical philosophy is supported by recent research.<sup>8</sup> Hume belongs to British empiricism, which centers on a representational approach to cognition influentially formulated by Bacon and Locke and contested by Reid, Berkeley, Hume, and others. Representationalism, or the causal theory of perception, stands or falls on the ability to justify the crucial anti-Platonic inference from effect to cause—in one prominent version, from an idea in the mind to the world. This difficulty, which has never been resolved, undermines the later anti-Platonic effort to answer Plato's ancient attack on representation and artistic imitation. This same difficulty returns in Kant's more complex approach to cognitive representation.

Kant's evolving view of representation is convoluted, unclear, and perhaps inconsistent. In the precritical *Only Possible Argument in Support of a Demonstration of the Existence of God* (1763), he suggests that "the word 'representation' is understood with sufficient precision and employed with confidence, even though its meaning can never be analyzed by means of definition."<sup>9</sup> But in the Dohna-Wundlacken *Logic*—presumably based on lectures given in the 1790s, hence in the critical period—he states that representation "cannot be explained at all."<sup>10</sup> In the seminal passage in the first *Critique* describing his (p.16) relation to Plato, he indicates that sensation (a change in the state of the subject), perception and cognition (or an objective perception) all fall under the general heading of representation. Cognition, Kant insists, is in general either intuitive or conceptual. Yet, since he favors a categorial approach to experience, he rules out intuitive cognition and hence rules out a Platonic approach to cognition, which leaves only representation.

In the critical philosophy, representationalism concerns the link between noumena and phenomena, the latter a term Kant frequently seems to use as a synonym for appearance.<sup>11</sup> By "appearance," Kant—perhaps distantly following Plato—understands the representation of a mind-independent object, which affects the subject<sup>12</sup> through sensation, or sensory intuition, in turn giving rise to an appearance (see *CPR*, B 33, p. 172).

Kantian theory of knowledge resembles classical modern causal theory of perception, hence representationalism, in two ways: with respect to vocabulary and through the causal relation between world and mind. Kant frequently uses the term "representation" in place of the modern representationalist term "idea," a word that has another usage in the critical philosophy. Further, like classical modern representationalists, he describes the causal input, which derives from the impact of the mind-independent world on the mind. Yet the Copernican turn that arguably lies at the epicenter of the critical philosophy—a cognitive approach often supposed to be representational—is not representational but in fact is based on the failure of representationalism.

Kant's attitude toward representationalism is inconsistent. Three intractable difficulties arise in any effort to classify Kant as a representationalist. To begin with, since Kant insists on the subjective contribution to cognition, and even though he uses representationalist terminology, the specific anti-Platonic backward inference necessary for representationalism is not possible

but rather impossible in the critical philosophy. Second, representationalism and constructivism are inconsistent, and, through the Copernican turn, he is clearly committed to constructivism. Finally, it would be clearly inconsistent to claim to represent the real while denying knowledge of noumena, or things in themselves. Hence Kant is not and cannot be a representationalist, or at least he cannot be a representationalist as “representation” is usually understood.

### Representationalism and the Double Aspect Thesis

It is sometimes argued that Kant is a representationalist in a nonstandard sense of the term concerning the so-called double aspect view. The double **(p.17)** aspect view is not a theory. It is rather a cognitive thesis embedded within a theory—in this case, in the critical philosophy within which, depending on the interpretation, it is sometimes thought to play a central role.

Kant, who often has difficulty in choosing between alternatives, typically defends, consciously or unconsciously, more than one approach. I have been suggesting that, following Plato (though he perhaps also defends or earlier defended representation), through his commitment to constructivism, Kant later turns away from representation, a cognitive approach that runs throughout the modern debate. The double aspect thesis indicates his hesitation about whether to defend or to abandon representationalism. This thesis is presented in different ways in Kant’s writings, especially in respect to the possibility of morality (*CPR*, B xxvii, p. 115), where it plays a crucial role, and as concerns the cognitive problem (*CPR*, B xviii, p. 111).

There are different metaphysical and non-metaphysical ways of reading the critical philosophy.<sup>13</sup> A metaphysical reading of the critical philosophy includes a so-called ontological commitment. In the double aspect thesis, the twofold metaphysical commitment includes the view that the mind-independent world affects the subject; it also includes the further view that the effect (or result) and the cause (or the thing in itself) are two aspects of the same thing. In that sense, the double aspect theory is an extreme form of the modern causal theory of perception—extreme in that the cause and the effect of the subject’s affection through the thing in itself (noumenon or mind-independent reality) are presumed to be identical. In the context of the critical philosophy, this amounts to collapsing the crucial distinction between phenomena and noumena on the assumption that at the limit, there is not any distinction between appearance and reality. This approach suggests that Kant intends in the critical philosophy to meet the Parmenidean requirement for knowledge as the grasp of the mind-independent world. Yet if what we perceive is constructed by the subject, then we cannot infer noumena or things in themselves from representations or appearances; hence we can make no positive cognitive claims about reality. In that case, thought can only be identical with being—and hence meet the Parmenidean criterion for cognition—if as its condition the subject must construct what it knows.

The double aspect thesis is a form of representation, which some Kant scholars defend, if necessary even against Kant. In summing up discussion that was already more than a century old, late in the nineteenth century, Hans Vaihinger identified three equally unsatisfactory ways of explaining affection in the critical philosophy as originating from: (1) the perspective of a thing in itself, (2) objects in space, or again (3) through a so-called double affection. **(p.18)** The latter includes a nonempirical affection through things in themselves and an empirical affection through objects in space.<sup>14</sup> Several decades later, Erich Adickes suggested that the double affection version of this thesis is central to Kant’s theory of knowledge.<sup>15</sup> More recently, Henry Allison has in effect made this thesis central to his defense of the critical philosophy.

Allison, in defending the double aspect thesis, is countering Strawson, Guyer, and many others. In the *Bounds of Sense*, Strawson reads the critical philosophy without transcendental idealism, which he regards as a deep mistake.<sup>16</sup> He and many others interpret the critical philosophy through the traditional Platonic dualism between appearances and reality. In the *Critique of Pure Reason*, Kant examines this distinction in detail in the chapter on phenomena and noumena (CPR, B 295–315, pp. 338–53). The concept of the noumenon can be interpreted differently; for instance, as referring to an epistemic limit or as an ontological distinction between what appears and what is. According to Strawson, who never mentions Plato, the distinction between phenomena and noumena is ontological. For Strawson and others who favor an ontological two-worlds reading of the critical philosophy, pioneered by Plato, it is not possible to make a cognitive inference from phenomena to noumena. This way of reading Kant is close to Maimon's view of the critical philosophy as a form of cognitive skepticism. Allison, on the contrary, takes an epistemic approach—originally worked out after Kant above all by Fichte—in which noumena and phenomena are two ways of cognizing one and the same object.<sup>17</sup> Versions of this view perhaps appear in the tradition before Kant in Spinoza, and after him in Husserl.

Kant, who is ambivalent, formulates the widely known double aspect thesis in the B preface to the *Critique of Pure Reason* at a time when, as noted, in virtue of the so-called Copernican turn, he has apparently moved away (or is in the process of moving away) from representationalism. Thus in an important footnote, in reference to the validation of the propositions of reason, he suggests the cognitive object can be considered from two perspectives as both an appearance and a thing in itself.<sup>18</sup> It is difficult to know what this claim signifies since, as already mentioned, representationalism is inconsistent with constructivism. It is possible that at the time he was formulating the constructivist approach Kant was still ambivalent about representationalism. His suggestion that the cognitive object can be understood from two perspectives is arguably a fall-back effort, either on his part or on the part of those committed to representation who intend to save Kant's version of the modern causal theory of perception through an undemonstrated and in fact indemonstrable claim. Since “officially” there cannot be any cognition of things in themselves, **(p.19)** neither Kant nor anyone else can demonstrate the same objects are the objects of sensation and of thought. Hence, the double aspect thesis does not provide an acceptable analysis of the relation of representations to objects called for in the famous Herz letter (1772).

In considering this thesis, it is useful to distinguish between Kant and those influenced by him, who are sometimes more orthodox about the critical philosophy than he was. Kant, who hesitates to make up his mind, on occasion defends incompatible alternatives, and also sometimes changes his mind. His remarks in the B preface about Copernicus suggest either that he later gives up representationalism—his initial cognitive strategy, which he adopts in following numerous modern thinkers—for a “replacement” constructivist strategy for knowledge, or again, as mentioned above, that he is simultaneously and inconsistently committed to both approaches. The crucial passage on the “Refutation of Idealism,” inserted in the second edition of the *Critique of Pure Reason*, suggests we are affected by and in fact know a mind-independent external world. Yet this view is incompatible with the constructivist view that we experience and know only what we in some sense construct.

Allison's defense of Kantian representationalism through a reading of the double aspect thesis<sup>19</sup> is influential.<sup>20</sup> Thus Beiser distinguishes between objectivist and subjectivist interpretations of the double aspect thesis. He attributes a quasi-subjectivist interpretation to Allison referring to the operations of the human mind,<sup>21</sup> but objects that this reading is inconsistent with Kant's

identification of representations and appearances at A 492. Here Kant, in a passage on transcendental idealism, writes in part that “all appearances, are *not things*, but rather nothing but representations, and they cannot exist at all outside our mind” (*CPR*, A 492, p. 511).

Certainly Kant, in some of his moods, identifies appearances with representations. This claim is consistent with Allison’s reading of Kant. Yet even if this were a correct interpretation of the critical philosophy, it would fail to demonstrate the double aspect thesis. The difference between appearances and phenomena is clear. All appearances are phenomena, but only some phenomena are appearances, or, if the cited passage is in fact Kant’s considered view, representations. Appearances would be representations if and only if noumena appear, which is the point at issue. But it cannot be shown that appearances are representations without showing that the double aspect thesis is correct.

In the familiar double aspect thesis, to which Kant alludes in passing, he draws attention to the distinction between objects of sensible intuition, or appearances, and things in themselves before indicating that the human subject (**p.20**) is both phenomenally determined and noumenally free. In this context, he writes: “But if the critique has not erred in teaching that the object should be taken in a *twofold meaning*, namely as appearance or as thing in itself” (*CPR*, B xxvii, p. 116). In this complex passage, Kant is concerned, since he believes in strict phenomenal causality, with staking out room for morality, which he defends through noumenal freedom. There are other similar passages. For instance, in reference to the distinction between rain and a rainbow, Kant writes: “Thus, we would certainly call a rainbow a mere appearance in a sun-shower, but would call this rain the thing in itself, and this is correct, as long as we understand the latter concept in a merely physical sense, as that which in universal experience and all different positions relative to the senses is always determined thus and not otherwise in intuition” (*CPR*, B 63, p. 170).

Beyond the defense of the possibility of morality, this claim is important with respect to cognition. To demonstrate that one and the same object is both an appearance and a thing in itself would go a long way toward making out a representational form of the modern causal theory of perception. If Kant’s version of the causal view of perception could be defended, it would vindicate, through the claim that “appearance” and “representation” are synonyms, an entire line of argument that otherwise, if Kantian representationalism fails, no longer seems promising.

The difficulty lies in maintaining a form of the double aspect thesis that allows Kant to make out the relation of appearances to objects without violating the central claim “that we have no concepts of the understanding and hence no elements for the cognition of things except insofar as an intuition can be given corresponding to these concepts” (*CPR*, B xxv-xxvi, p. 115). Yet if there is no cognition of things in themselves—which we can only think of, but neither know nor even experience—then it is not possible but rather impossible to demonstrate the double aspect thesis.

Allison’s non-metaphysical reading of the critical philosophy, which looks away from any ontological commitment, is not at all obvious. A more obvious way of reading the critical philosophy might be as a theory about the affection or causal impact of the mind-independent but uncognizable external world on the cognitive subject. “Things in themselves,” from this perspective, would have ontological weight since this term would literally refer to things. There are numerous passages that might be read in this way. For instance in a remark on speculative theology, where Kant seems once again to equate appearances and representations, in reference



to “things in themselves,” he writes: “Such an intelligible cause, however, will not be determined in its causality by appearances, even though its effects appear and so can be determined through other **(p.21)** appearances” (*CPR*, B 565, p. 535). Kant seems here once again to be saying that the mind-independent world affects the subject in producing through the latter’s activity representations and appearances.

Allison rejects an ontological approach in favor of an epistemic reading of the concept of the thing in itself. According to Allison, who perhaps has in mind the familiar contrast between ordinary (or everyday), unsophisticated views and philosophical views, the term “thing in itself” simply specifies the epistemic conditions of cognizing spatiotemporal objects.<sup>22</sup> He intends to make it plausible to understand representations as both appearances as well as things in themselves. Hence, if the double aspect approach could be made out, representationalism would be plausible because noumena would in fact appear.

When taken in isolation, the double aspect thesis, as Allison’s critics (e.g., Ameriks, Guyer, and Langston) point out, undermines the familiar ontological reading of the Kantian cognitive object.<sup>23</sup> Numerous passages support an ontological reading of the thing in itself, which, if sustained, would run against a purely epistemic reading of this concept. Kant consistently describes the thing in itself as an entirely unknown and unknowable cause of representations, which is not a thing but a concept.<sup>24</sup> It follows that it is not in either space or time, that it cannot be an object of sensible intuition (see *CPR*, B 522, pp. 512–13), and that it ought not be accorded the status of a self-subsistent reality (see *CPR*, B 594, p. 550).

Certainly Kant cannot claim that reality is beyond cognitive reach and defend the double aspect thesis. Both the ontological and the epistemic readings of the distinction between noumena and phenomena have textual support, but the epistemic reading is cognitively indefensible for two reasons. First, though representationalism is often asserted, there is no known argument that demonstrates the transition from the representation to what it represents, hence apparently no way to justify the claim to represent reality. This point supports the Platonic rejection long ago of a backward inference from effect to cause. The best way to justify Kant’s Copernican turn is as an alternative approach to cognition (a second-best theory) in place of representationalism, which fails. Second, the double aspect thesis is a form of representationalism. Since representationalism and constructivism are incompatible, the turn to representationalism mandates a turn away from constructivism. Now Kant is perhaps inconsistent, since he appears on occasion to defend both representationalism and constructivism. Yet since representationalism is both inconsistent with constructivism and, as Kant himself correctly indicates, fails as an approach to cognition, he cannot consistently defend and also cannot consistently be defended as a representationalist thinker.

### **(p.22)** Kantian Subjectivity and Cognition

Kant’s conception of the subject is central to his constructivist approach to cognition. The subject is one of the most difficult but also most important themes in modern philosophy, as well for Kant. Early in the medieval period, a view of the subject was formulated to provide for an account for human responsibility in the context of the Christian view of original sin. This basic view of the subject is carried over into the modern period—for instance, through Descartes, who transforms a Christian conception of the subject morally responsible for its acts<sup>25</sup> into a cognitive subject capable of apodictic knowledge able to defeat the most rigorous forms of skepticism.

In the complex modern debate on subjectivity, the two main variants consist in an anthropological approach to knowledge, based on conceptions of the nature and limits of finite human being; and a speculative approach, linked to the requirements of knowledge in general. These two approaches to the cognitive subject respectively lead to views of human knowledge, or again, knowledge in general.

The two-dimensional Cartesian subject, which combines both approaches, is both a finite human being as well as a rational construct, capable of apodictic knowledge through reason in restraining the will. The British empiricists stress human knowledge through a concept of the subject as finite human being. Kant, who anticipates the Husserlian critique of psychologism, stresses the purely rational aspect of the subject throughout his position. Kant was interested in anthropology and wrote a book on the topic. He was also one of the first to teach anthropology in Germany. He often but perhaps inconsistently refers to the capacities of finite human beings in working out his transcendental deduction. For instance, he notes more than once that finite human beings do not have intellectual intuition, hence must rely on sensory intuition (see, e. g., *CPR*, B 135, p. 248; B 139, p. 250; B 145, p. 253; B 146, p. 254; B153, p. 257). Yet the Kantian cognitive subject is simply “deduced” as the final step in the transcendental deduction—and, since this is the conceptual heart of the first *Critique*, as the copingstone of the critical philosophy, as it were.

A rapid reference to the role of the subject in cognition does not exhaust the theme in the critical philosophy. One can interpret the overall position through the three *Critiques*, each of which proposes an account of a basic type of experience in terms of a specific kind of activity. The difficulty lies in bringing together an analysis of aspects of the subject’s activity in an overall concept of the subject. If he could accomplish this task, then Kant could answer the deep question, which, in the *Jäsche Logic*, he indicates is more important than **(p.23)** any other, that is: what is man? In retrospect, Kant seeks but fails to combine abstract approaches to cognition and morality—or theoretical and practical reason—in a single concept of the subject. Despite his best efforts, this synthesis remains no more than a promissory note, which is redeemed only in the later discussion by Fichte, and then in a related but different way by Marx.

Kant is critical of other modern theories of the subject. He stresses, for instance, Hume’s influence and criticizes Descartes. Yet he rejects Hume’s bundle theory of the subject while following the Cartesian emphasis on the subject, or “I think,” an obvious translation of the French thinker’s “cogito” (or “je pense”), as central in cognition. Classical modern representationalism follows the Cartesian insight that the road to objectivity leads through subjectivity while comparatively deemphasizing the subject when emphasizing the object as the unimpeachable source of objective knowledge claims. At most, as Descartes emphasizes, the subject chooses among different ideas an acceptable candidate for knowledge.

The traditional minimalist modern approach to subjectivity sacrifices the active role of the subject in cognition, which Kant hastens to restore. For Descartes, error arises through a failure to bring the will under control, which Kant stresses in his rational conception of the moral will. And for Hume, the mind leads us astray in thinking we perceive causal connections where there are none.

By virtue of his constructivist approach to cognition, the Kantian subject cannot be passive or only passive, but must also be active in constructing what it knows. According to Kant, cognition

requires both the causal impact of the world through sensation, which, since it lacks form, is uncognizable, and which acquires form, hence becomes cognizable, only through the activity of the subject in constructing, producing, or making a cognitive object.

In simplifying, we can say that Kant, like Descartes, understands the subject on two levels as both finite and infinite: as a human being, a theme to which he refers in the *Jäsche Logic* and discusses in the *Anthropology*; and as the philosophical subject he describes in “The Transcendental Deduction of the Categories” as the highest concept in his cognitive theory. Kant’s conception of the subject changes over time. In both the first and second *Critiques* as well as in the *Groundwork*, the philosophical subject is not an individual but a mere conceptual placeholder whose contours are not based on observation, but are rather deduced in terms of the requirements of the critical philosophy, above all in “The Transcendental Deduction of the Categories.”

For purely cognitive reasons, Kant ascribes epistemic activity to the subject, which is not just passive, but passive as well as active. The view of the **(p.24)** subject as also active alters the conception of the subject as well as cognition. Before Kant, early modern conceptions of knowledge feature passive reception of what is as a faithful representation of the world. After Kant, knowledge depends on a subject, which, in being affected, constructs cognizable cognitive objects, or so-called appearances of a mind-independent world it can neither experience nor know.

### Some Views of Kant’s Copernican Revolution

In turning now to the Copernican revolution, it is useful to distinguish between the astronomical theory formulated by the Polish astronomer, Kant’s interpretation of it, and the constructivist approach to cognition it inspired in the critical philosophy. “Copernican revolution” is now used indiscriminately to refer to the views of both Copernicus and Kant. By this term I understand an approach to experience and knowledge of objects as dependent on the subject, illustrated by Copernicus, Kant, the post-Kantian German idealists, and many others.

Kant indicates that what quickly became known as his Copernican revolution is central to critical philosophy. But, in a Kantian debate where even seemingly minor themes are analyzed in detail, there is surprisingly comparatively little attention devoted to the Copernican revolution.<sup>26</sup> Discussion of Kant’s Copernican revolution, is often very brief and confined to the epistemic consequences of a change in orientation. According to Paton, Kant—like Copernicus, who explains apparent motions of the planets through the motions of the observer—describes reality as it appears through the subject.<sup>27</sup> Ewing contends that in introducing a distinction between appearance and reality, Kant, like Copernicus, attributes reality to the subject.<sup>28</sup> In Höffe’s view, for Kant the objects of knowledge appear by virtue of the subject.<sup>29</sup> In his recent study, Friedman, who distinguishes between appearance and experience, mainly stresses the role of the Copernican astronomical revolution in Kant’s concept of nature in looking away from the constructionism featured in the title of his book.<sup>30</sup>

There seem to be two main approaches to Kant’s Copernican revolution in the debate. Cassirer and other German neo-Kantians, who provide epistemic readings of the first *Critique*, regard the Copernican revolution as key to Kant’s approach to cognition.<sup>31</sup> On the contrary, phenomenologists and those influenced by a phenomenological perspective tend to downplay the interest of Kant’s remarks on Copernicus, which they regard as furnishing false or **(p.25)**

misleading suggestions about how to interpret his theory. Heidegger, an opponent of German neo-Kantianism, substitutes a metaphysical for an epistemic interpretation of the first *Critique*, which he regards as basically mistaken.<sup>32</sup>

The core claim common to both perspectives is that in Kant's Copernican revolution lies a change of perspective based on a distinction between appearance and reality. As a result, what earlier appeared to be reality is now known to be mere appearance. This interpretation of Kant's so-called Copernican revolution captures it in part. Yet Kant does a good deal more than that: his interpretation of Copernicus's change of perspective crucially affects his reading of Newton and of the rise of the new science as well as his own distinctive theory of the conditions of knowledge.

### Copernicus, Kant, and the New Science

There is a difference between a specific astronomical use of the term "revolution," and the way this term functions in Kant's critical philosophy. In *De revolutionibus orbium coelestium*, Copernicus uses "revolution" to refer to the circular orbits of the planets. As concerns the critical philosophy, the term does not refer to Copernicus's understanding of revolution, but rather to the influence of the Copernican astronomical revolution on Kant's cognitive theory.

Kant's interpretation of Copernicus follows from a conception of science that was far from standard even when he was writing. This is not the place to discuss Kant's conception of science in detail. For present purposes, it is sufficient to describe that approach as including three main factors: To begin with, there is the discontinuity, or scientific revolution, that Kant thinks separates Copernicus's theory and earlier science; then there is the way that this discontinuity was brought about by Copernicus, who made possible the rise of the new science which, as Kant understands it, is literally built on a Copernican foundation. And finally, there is the way that Copernican astronomy functions as a basis for the epistemic revolution Kant intends to carry out in philosophy. Each of these points is problematic.

The idea of a Copernican revolution in astronomy—which for many years was regarded as obvious,<sup>33</sup> even as the central event of modern times<sup>34</sup>—now appears questionable in virtue of recent discussion of the very idea of a scientific revolution. It has been seriously suggested that there was no scientific revolution.<sup>35</sup> And if there was no scientific revolution, then it would **(p. 26)** be meaningless to make claims about Copernicus's supposed revolution in astronomy.

The case for Copernicus's astronomical revolution has to be made with respect to the difference between Copernican and other types of astronomy. Those who believe in a Copernican revolution see his contribution as breaking with preceding astronomical views. Those who argue against the idea of a scientific revolution regard his theory as another in a long line of incremental changes in which there was no decisive discontinuity, and hence no break with preceding theories.

It seems difficult to deny that there was a scientific revolution. At best, one could deny that any single event brought about the scientific revolution about. Thus it would be implausible, say, to equate Aristotelian science, which is qualitative, with the new science, which is quantitative. Yet this does not suffice to explain Copernicus's scientific advance.

Copernicus theorized in the context of the reigning geocentric theory of astronomy, which was formulated by Ptolemy and was based on Aristotelian cosmology. Late scholastic thinkers such as Grosseteste, Bradwardine, Buridan, Oresme, and Nicholas of Cusa were attracted to a

heliocentric hypothesis but impeded by established dogma from accepting it. Prior to Copernicus, there was no single astronomical theory covering all the observed phenomena. At the very least, his astronomical contributions include: a heliocentric theory to replace the geocentric view then in vogue; a single global theory to replace all the ad hoc hypotheses (in practice, the epicycles required in the Ptolemaic system to account for observed motion); a systematically simpler theory than the preceding theory; and the interpretation of observed motion in terms of our own motion.

Kant certainly thinks Copernicus's contribution constitutes an astronomical revolution. In displacing the geocentric hypothesis with a heliocentric hypothesis, everyone knows Copernicus displaced not only the earth, but also the human being, from the center to the periphery of the universe. Yet Kant was not attracted to Copernicus because the latter displaced either the earth or human being from the center to the periphery, or even through his creation of a new absolute center occupied by the sun. Kant was rather attracted to Copernicus by the counterintuitive way in which the latter related observed motion—what is now known as the apparent retrograde motion of the planets—to the spectator, as the result of our motion (see *CPR*, B xxii, p. 113).

In re-situating the earth from the center of the solar system, Copernicus notes that it rotates on its axis and revolves around the sun. This point affects the interpretation of Kant's view of Copernicus, which remains difficult. It is **(p.27)** not clear whether Kant's understanding of the Copernican astronomical revolution refers to the rotation or revolution of the earth; or, on the contrary, to the change in point of view that allows Copernicus to explain perceived motion; or finally, to both of the above.

Kant's conviction that Copernicus made possible the rise of modern science rests on his reading of the link between the Copernican explanation of the kinematics and the Newtonian explanation of the dynamics of the solar system. According to Kant, Newton's theory, which is the high point of natural science, depends on the change of perspective in Copernican astronomy. For Kant, Newton's discovery of the law of gravitation was possible only because of Copernicus's change in perspective.

In the preface—added to the second edition of Newton's *Principia* in 1713—Roger Cotes suggests<sup>36</sup> that Newton's astronomical contribution lies in proving from appearances that gravity belongs to all bodies.<sup>37</sup> Kant apparently generalizes Cotes's suggestion to relate Newton to Copernicus. According to Kant, Copernicus put forward as a hypothesis a theory that offers a physical explanation for the perceived phenomena, but which he could not prove and which was only finally proven through Newton's law of gravitation. This suggests if Newtonian mechanics depends on Copernican astronomy, and if the latter only finally emerges through a basic change in perspective, that in this way Copernicus makes possible the emergence of modern science. Thus Newton, in formulating the law of gravitation, finally solves Copernicus's problem in his theory of mechanics, which represents the high point of modern science, and even the end of natural science (if, as Kant is persuaded, the theory is valid).

Kant's view of the transition from Copernicus to Newton is innovative in the role assigned to Copernicus and in the idea that scientific theories can be proven. This view derives support from two factors: first, the way that Copernicus, though still a medieval figure, displaced theology from nature; and second, the introduction of a different mechanical model. Modern science is

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typified by the introduction of a simplified mechanical model for more complex phenomena, which, through this strategy, receive a mathematical interpretation.

One should not overlook the originality of Kant's approach. In privileging the role of Copernicus in the rise of the new science, Kant differs from the more standard view; for instance, in the version suggested later by Husserl, according to which the main impetus in the development of modern science lies in Galileo's application of mathematical techniques to the understanding of nature.<sup>38</sup>

**(p.28)** It is clear that in supplanting the geocentric astronomical view with a heliocentric view, Copernicus helps displace theology from nature. His mechanical model was in turn reformulated by Kepler, whom Hegel defends against Newton (who, by Hegel's account, routinely receives credit for something he did not do), then by Newton. Kepler, who built on Copernicus, is usually regarded as the first modern astronomer. In practice, his three laws of planetary motion led directly to Newtonian mechanics. Kant, who believes that the laws of nature can be proven (see *CPR*, B 198, p. 283), suggests that, on the basis of the Copernican hypothesis, Kepler formulated the laws of planetary motion, which were then proven through what he calls Newton's "central laws of the motions of the heavenly bodies" (see *CPR*, B xxii, p. 113)

Kant's claim remains unclear. The difficulty with this way of reading the relation of Newton to Copernicus does not lie in the relation of a dynamic to a kinematic analysis, but rather in the very idea that the laws of nature, hence natural science, can be proven. Kant claims that Newton proved gravitation to be more than merely phenomenal, which Copernicus only assumed as a hypothesis. Yet there are at least two reasons to doubt this is the case. First, it seems odd and difficult to understand that something can be proven at one time but later refuted. This suggests that the law of gravitation as formulated in Newtonian mechanics could not have been proven, even were such proofs possible, since it was later abandoned in general relativity. The point is not to compare two theories that are different (and perhaps for that reason incomparable), but to note that from the current fallibilist conception of modern science, theories are not and can never be proven, and hence are never beyond the possibility of refutation.<sup>39</sup> It follows that Newton, who could not have proven Copernicus's hypothesis, could at most have demonstrated reasons for adopting it, such as its heuristic usefulness in calculating the planetary orbits.

It is now usual to hold that science justifies but does not prove itself. On this view, Newtonian mechanics justifies, say, Newton's law of gravitation, which cannot further be justified. Kant's contention that philosophy must ground, hence justify, science has its beginnings in the Platonic idea that philosophy demonstrates its own and all other claims to know. Yet from the philosophical angle of vision, the ancient Platonic view of science as requiring a form of justification it cannot itself provide was already outmoded in Kant's time. It was clearly rejected by Hegel, who accepted the view, typical for modern science, that modern science need not appeal to any further form of cognition to secure its knowledge claims. Even Husserl, who otherwise strongly defends Kant, rejects the Kantian idea that natural laws can be known other than through empirical induction.<sup>40</sup>

### **(p.29)** Kant, Copernicus, and Newton

Kant's interpretation of Newton as building on Copernicus suggests natural science presents a project that develops through successive theories. This interpretation provides insight into his own effort to develop Newtonian mechanics beyond Newton through a cosmological theory. Kant's early work on *Universal Natural History* began an effort to extend Newtonian mechanics, which Newton limited to the solar system, to the entire universe. Newton did not distinguish between the solar system and the universe, as the full original title of his treatise makes clear. Kant made the necessary distinction in the course of working out his theory of the genesis of heavenly bodies and their motions through mechanical laws.<sup>41</sup>

In the *Principia*, Newton famously contends at the end of the "General Scholium" that God widely separated the stars to prevent gravity from causing them to collapse.<sup>42</sup> Kant, who relies solely on Newtonian principles, takes a wholly secular approach to science. He removes God as an explanatory factor by contending that nature is self-sufficient,<sup>43</sup> hence in no need of divine interference. In arguing that the fixed stars move, he posits as a second basic force the tendency for bodies in motion to continue in a straight line, which counteracts gravitational attraction (a concept apparently similar to our present concept of conservation of momentum). The two forces, when taken together, form a universal system of orbital motions.<sup>44</sup>

The same intention to generalize Newtonian mechanics to the universe in general is visible many years later in the first *Critique*, for instance in a passage on the regulative employment of ideas. Here, in a reference to Kepler's revised understanding of elliptical planetary orbits as grounded in the Newtonian theory of gravitation, Kant suggests its application to comets as well as the entire universe (*des unbegrenzten Weltsystems*) (CPR, B 691, p. 601).

### Kant's Copernican Revolution

Kant's interpretation of Newton is later contested in Hegel's critique of Newtonian mechanics. As Kant reads modern science, Copernicus introduced a hypothesis that Newton demonstrated on empirical grounds with certainty (hence apodictically), but which still must be grounded philosophically through a general, or a priori, demonstration of the laws of science. Kant claims to do this through the famous Copernican turn, which, he believes, alone shows the possibility of objects of experience in general and knowledge of them in particular.

**(p.30)** Kant's Copernican turn is his alternative to representationalism, which depends on the possibility of representing reality. Constructivism, on the contrary, denies that mind-independent reality can be successfully represented by contending we can only cognize what we in some sense "construct."

When Kant was active, representationalism was familiar, but constructivism (which is still not well known) was unusual. It is possible, as Kant himself suggests, that as concerns constructivism he is working with an original idea he knows how to use but does not know how to describe. It is also possible that he is not entirely clear about the differences between representationalism and constructivism, or even that he sometimes inconsistently espouses both approaches.

Though Kant insists on a priori cognition, he bases the argument for a new approach squarely on experience. Despite his "official" reliance on theory formulated prior to and apart from experience, Kant inconsistently believes we can judge a science by its results. He clearly bases his Copernican experiment on the lack of results following from the venerable assumption,

consistent with the ancient Parmenidean view, that cognition must conform to its object. It is because there has never been progress on this assumption that he proposes that, as an experiment, we assume that the object must conform to our cognition.

Kant's suggestion is similar to the indirect mathematical proof, which relies on excluding one possibility to demonstrate the other. Since he has formulated the theory based on the hypothetical assumption that the object must conform to cognition, Kant—perhaps with the indirect mathematical proof in mind—thinks this approach is no longer hypothetical but rather true.

Kant does have in mind historical precedent—in the contributions of Galileo and Copernicus—in creating modern science. He remarks that Galileo and others understood in the seventeenth century in creating modern natural science that “reason has insight only into what it itself produces according to its own design” (*CPR*, B xii-xiii, p. 109). If reason can know only what it constructs, then it obviously cannot rely on a representational strategy to cognize the external world. Yet Kant's proposed solution via the construction of cognitive objects is unclear. In the B preface, he surveys four forms of cognition. Kant (who here abandons his preference for the *a priori*) suggests that, in their own way, logic, mathematics, and natural science are already on the secure road of science. This is an *a posteriori* criterion Kant here apparently adduces, by contradicting his claim to base knowledge on *a priori* grounds, in order to ensure the acceptability of any and all claims to know. Kant's approach to placing the future science of metaphysics on this road, which appears to be **(p.31)** multiply-determined, includes: his concept of knowledge as apodictic, hence unrevisable; his view of mathematics, especially ancient geometry; and his reading of the rise of modern natural science, as well as other factors.

According to Galileo, the universe “is written in the language of mathematics, and its characters are triangles, circles, and other geometric figures.”<sup>45</sup> Many observers believe that mathematics is central to the rise of modern science. Kant's conception of mathematics is controversial. In the account of “The Doctrine of Method” late in the first *Critique*, he affirms the traditional view of mathematics as an exceptional example of pure reason—in short, as what is sometimes still called the so-called queen of the sciences. Kant further draws attention to the distinction between philosophy, which analyzes concepts, and mathematics, which constructs concepts (*CPR*, B 741, p. 630).

Though he stresses the difference between philosophy and mathematics, Kant apparently takes mathematics, especially geometry, as his philosophical model. According to Kant, mathematics and philosophy are mirror images of each other. Mathematics considers the universal in the particular, and philosophy considers the particular in the universal (*CPR*, B 742, pp. 630–31). Construction takes place through intuition; that is the only way an object is given (*CPR*, B 747, p. 633). Geometrical construction yields a particular, which is an instance of the general concept.<sup>46</sup> This point is further supported by Kant's claims in *Metaphysical Foundations of Natural Science* (1786) that because, as he writes, “the possibility of determinate natural things cannot be cognized from their mere concepts ... it is still required that the *intuition* corresponding to the concept be given *a priori*, that is, that the concept be constructed, which is a task that requires mathematics.”<sup>47</sup> This passage, which is Kant's justification for the important claim that “in any special doctrine of nature there can be only as much *proper* science as there is *mathematics* therein,”<sup>48</sup> is clearly basic to his general view of knowledge.



The discovery of non-Euclidean geometry required changes in claims about the relation of geometry to the world. Before the discovery of non-Euclidean geometry, it seemed obvious to observers that there was only a single kind of geometry, which was also the geometry of the world. Later mathematical developments cast doubt on aspects of Kant's view of mathematics, especially geometry. Kant not surprisingly shares the view of mathematicians of his time that Euclidean geometry is a priori and synthetic. He relies on the inference, which was correct at the time but later shown to be mistaken, that there can be only a single geometry to infer that it describes real space. The rise of non-Euclidean geometry demonstrates that alternatives are possible which can describe the properties of physical space as accurately as Euclidean geometry.<sup>49</sup> **(p.32)** In Einstein's general theory of relativity, for instance, the curvature of light rays in a gravitational field is often believed to show that space is non-Euclidean. Yet it is unclear that Kant would need to revise the view I am attributing to him that geometrical construction is the exemplar of a constructivist approach to cognition.

A reading of geometry as the cognitive exemplar agrees with Kant's reading of mathematics, natural science, and the future science of metaphysics. In the B preface to the first *Critique*, he contends that mathematics and physics determine their objects a priori, the former entirely a priori and the latter partly so. As concerns mathematics, he gives as an example the a priori construction of a figure. In natural science "grounded on empirical principles," he thinks we must rely on principles according to so-called "constant laws," or laws of nature, when depending on "the agreement among appearances." At stake is the constructivist view that "reason has insight only into what it itself produces according to its own design" (*CPR*, B xiii, p. 109). If we recall the importance of geometrical construction, then it is plausible Kant may be thinking of the successful application of mathematics to nature in the seventeenth century.

The difficulty evidently lies in ascertaining what kind of cognitive inference, if any, can be drawn through such an approach. There are many views of intuition. Kant's constructivist approach relies on intuitive construction in mathematics and natural science. Plato relies on intellectual intuition, which Kant later rejects, for knowledge of the forms. In *Rules for the Direction of the Mind*, Descartes distinguishes between deduction and intuition as the two main approaches to knowledge. For instance, in the third rule he calls for the examination of what we can intuit or deduce with certainty. Modern intuitionism is an approach to mathematical thinking based on mental construction, invented by Kronecker, Poincaré, and especially Brouwer. Euclidean geometry is constructive, as already noted, in a mathematical sense. Kant apparently believes Euclidean geometry is true a priori for two reasons: it can be formulated, and there is no possible alternative. Since he fails to consider alternative scientific theories about the same phenomena, he similarly seems to believe that agreement among appearances can count as laws. By implication, from the Kantian perspective, a cognitive alternative—for instance, an alternative to Newtonian physics that later emerged in relativity theory—is impossible.

Kant, who thinks the constructivist approach has brought mathematics and physics to the secure path of science, relies on this approach as the basis of the future science of metaphysics. He undertakes a revolution to put metaphysics on the secure path of a science. His Cartesian strategy consists in going beyond constant disputes through the appropriate method, whose **(p. 33)** correct application guarantees objective cognition. His constructivist insight, which is apparently the same idea underlying his understanding of Euclidean geometry, is that construction in intuition functions as a proof of the existence of the object, in this case as a proof of a priori knowledge in metaphysics.

We have noted above that Kant's approach is analogous to indirect mathematical proof, which supposes that there are two and only two possibilities and that one is false. Kant similarly claims that in metaphysics that there are two and only two cognitive strategies. He further claims that our experience so far has failed to reveal, and is unlikely to reveal, a way to demonstrate the claims of metaphysics on the assumption that cognition conforms to the cognitive object. In a seminal passage, he writes: "Up to now it has been assumed that all our cognition must conform to the objects; but all attempts to find out something about them a priori through concepts that would extend our cognition have, on this assumption, come to nothing. Hence let us once try whether we do not get farther with the problems of metaphysics by assuming that the objects must conform to our cognition which would better agree with the requested possibility of an a priori cognition of them" (*CPR*, B xvi, p. 110).

This passage is significant in a number of ways. It points to a deep tension in Kant's position, since he clearly but perhaps inconsistently intends to ground a priori knowledge on the a posteriori plane—more precisely, on the results of experience. Second, it initially presents Kant's novel approach to metaphysics as nothing more than an experiment. Then, it introduces an anthropological element in positing that cognitive objects must correspond to the structure of the human mind. Further, it follows Kant's understanding of Euclidean geometry as the geometry of the world. In constructing geometrical figures, it is possible to anticipate a priori what according to Kant must hold true of experience, and hence must be confirmed on the a posteriori plane. Finally, it crucially suggests the utility of reversing the usual approach in which knowledge depends not on the subject but rather on the object.

This reversal has a famous precedent, to which Kant immediately refers in likening his procedure to Copernican astronomy. Kant compares his metaphysical approach to "the first thoughts of Copernicus, who, when he did not make good progress in the explanation of the celestial motions if he assumed that the entire celestial host revolves around the observer, tried to see if he might not have greater success if he made the observer revolve and left the stars at rest" (*CPR*, B xvi, p. 110). Though elsewhere Kant espouses an a priori approach, he seems here to be suggesting that cognition, which is a priori, is based on a trial-and-error process in selecting the appropriate method. He calls attention to the similarity between his metaphysical view and (p.34) the Copernican astronomical approach in famously writing that "If intuition has to conform to the constitution of our faculty of cognition, then I do not see how we can know anything of them a priori; but if the object (as an object of the senses) conforms to the constitution of our faculty of intuition, then I can very well represent this possibility to myself" (*CPR*, B xvii, p. 110).

Kant's argument obviously rests on a complex analogy linking his approach to metaphysics with Euclidean geometry and Copernican astronomy. The reactions to this analogy are very disparate. Suffice it to say that according to Kant, Euclidean geometry and Copernican astronomy both employ constructivist cognitive approaches. From the former he takes the view that the a priori construction of instances is necessarily confirmed in experience. From the latter he takes the idea that experience, hence knowledge, is not independent of anthropological considerations since it depends on the constitution of the human mind. Kant sums up the argument in writing that "we can cognize of things a priori only what we ourselves have put into them" (*CPR*, B xviii, p. 111).

Kant's constructivist approach, which is not often analyzed in detail, is often misunderstood. His interesting suggestion that someone who discovers an original idea often does not fully grasp it perhaps applies to Kant himself. It is arguable that Kant does not understand or fully understand how to expound his Copernican insight (see *CPR*, B 862, p. 692). It is plausible that his original idea must, as he says, be explained according to reason, but not according to the way he formulates it.

Cognitive constructivism is based on a type of identity—more precisely, a view of identity in difference. Identity in difference, which differs from identity tout court, goes all the way back at least to early Greek philosophy. The difference lies in the stress on activity—more precisely, the subject's activity as the unity, which is neither subjective nor objective, and which subtends the difference between them. This concept appears as early as Aristotle. Aristotelian activity (*energeia*) is apparently Aristotle's answer to Plato's supposed inability to grasp the relation between forms and appearances. The Aristotelian view of unity as subtending difference anticipates a theory of practice, which later reappears in many related guises. Aristotle, for instance, understands the many episodes of an individual life as forms of activity, as well as human life in general as an activity. This concept of unity in difference later becomes the basis of cognitive constructivism.

In one form or another, identity theory runs like a red thread through the views of the main post-Kantian German idealists. This claim, which is easily misunderstood, requires clarification. There are different kinds of identity (p.35) theory and different kinds of identity. Plotinus is said to deny any difference between the representing and the represented.<sup>50</sup> Through the principle of the identity of indiscernables, Leibniz contends that no two distinct things exactly resemble each other.<sup>51</sup> Heidegger insists on an ontological difference. Identity theory is now frequently linked to reductionism; for instance, the reduction of the mind to the brain.<sup>52</sup> Thus the correspondence theory of truth is sometimes criticized on the grounds that statements about reality fall short of it. Frege, for instance, distinguishes between things and ideas in denying that things can correspond to ideas.<sup>53</sup>

It is useful to call attention to the link between constructivism, or the claim that the subject constructs its cognitive object as a minimal condition of knowledge, and so-called identity theory.<sup>54</sup> This claim refers to a form of identity between the subject that knows and a cognitive object that is known—or in another formulation, between thought and being. Kant's suggestion that a cognitive subject cannot know a mind-independent object points toward a theory based on the opposite claim: in knowing, one knows oneself, or more precisely, oneself in the form of externality. In other words, Kantian constructivism supposes a form of identity.

In different ways, this concept echoes through post-Kantian German idealism. The post-Kantian German idealists each restate a form of the Copernican idea that we know only what we construct. Kant's transcendental deduction culminates in a conception of the cognitive subject, or synthetic unity of apperception, as the highest point of the understanding, logic, and transcendental philosophy (see *CPR*, B 134, p. 247). If a minimal condition of knowledge is that the subject must construct the object, then in a sense, in order to be specified, subject and object are both different as well as identical. In other words, there is a metaphysical identity in the difference between the subject that knows and the object that it knows.

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We can illustrate this concept with respect to the cognitive object, which derives from two sources: sensation through which the subject is affected, and which provides the matter of the cognizable object; and the form of the object that arises from the imposition of the categories situated in the understanding. Hence, by knowing, the subject in part knows what is external to it (sensation), which it cognizes as the object; and in part knows itself—or is self-conscious, so to speak, of what it does by constructing the cognitive object. In other words, according to the constructivist approach, the cognitive subject is both conscious and self-conscious.

German idealist constructivism, which is routinely described as an identity theory (*Identitätstheorie*), in fact rejects it. Though it appears to require an **(p.36)** identity between subject and object, knower and known, thought and being, it refuses a pure unstructured identity in favor of an identity between identity and difference. In different ways, this approach runs throughout the entire Western tradition. It is, for instance, central to Platonism, which appears to build on or at least to presuppose the Parmenidean view that to know requires a grasp of mind-independent, unchanging reality lying beyond mere appearance, presumably through the identity between one or more ideas in the mind and mind-independent external reality. Parmenides is often depicted as the main progenitor of the Platonic view that we cannot know appearance. This Platonic view is clearly denied in the Kantian claim that knowledge is restricted to appearance only. “Appearance” in this context designates what is given in experience in phenomenal form as distinguished from a representation of mind-independent reality.

Kant’s Transcendental Deduction, Identity in Difference, and German Idealism  
“The Transcendental Deduction of the Categories” illustrates Kant’s constructivist approach to cognition. It is then no accident that §14, in which Kant describes “The Transition to the Transcendental Deduction of the Categories,” and §27, in which he presents an account of “The Result of the Deduction of the Concepts of the Understanding,” both begin by restating Kant’s Copernican insight: it is not the mind-independent object that makes cognition possible; rather, it is the construction of the object in the mind—the result of bringing the contents of sensory intuition under the categories—that makes the object possible.

To conclude the discussion of Kant, it will be useful to say a few words—but no more than that—about how his constructivist approach supposedly works in practice with particular reference to the transcendental deduction. I have suggested that, as the name suggests, Kantian constructivism turns on the construction of a cognitive identity in difference. Different conceptions of identity in difference run throughout Kantian and post-Kantian constructivist approaches to cognition. Kant works out his view of this identity throughout his position. His metaphysical and transcendental deductions both serve to justify a priori cognitive claims. The two deductions together form the Kantian answer to the transcendental question about the conditions of the possibility of knowledge. Speaking generally, the metaphysical deduction constitutes Kant’s effort to identify the categories or pure concepts of the understanding. According to Kant, there are as many logical functions of the understanding **(p.37)** as there are what he calls logical functions of all possible judgments. Kant’s claim that there are in fact twelve and only twelve logical functions of judgment as well as twelve corresponding categories suggests closure.<sup>55</sup> The transcendental deduction, which follows the metaphysical deduction, is intended to exhibit the possibility of “*a priori* cognitions of objects of an intuition in general” (*CPR*, B 159, p. 261); in other words, the construction of the so-called appearance—or

more precisely, the phenomenal object—on the basis of sensation in principle derived from the mind-independent object (which, however, does not and cannot appear).

The metaphysical deduction supposedly identifies the categories of the mind and the transcendental deduction informs us about how it works. The transcendental deduction, which presupposes the metaphysical deduction, is central to the critical philosophy as well as one of the most complex and frequently analyzed parts of the text. The transcendental deduction, which is often regarded as the centerpiece of the *Critique of Pure Reason*, has been extensively studied in what has by now become a cottage industry. It would go beyond the limits of the present account to propose still another reading of this complicated passage. It will suffice at present merely to bring out that the Kantian account of the construction of the cognitive object in fact turns on the construction of an identity in difference and hence, at the risk of repetition, justifies the theoretical claim embodied in the Copernican turn: we know only what we construct.

In simplest terms, the transcendental deduction provides an account of the cognitive object as the product of an interaction between the mind-independent real (variously designated as the thing in itself or noumenon), and the cognitive subject (or again, the transcendental subject). This interaction results in an identity in difference through a conceptually unified and knowable cognitive object including subject and object, form and content, or again external input through sensation and internal output through the activity of the understanding, through which, in bringing sensations under the categories, or rules of synthesis, the cognitive object is constructed.

Kant's argument in "The Transcendental Deduction" resembles his view of Euclidean geometry, which depends on the possibility of constructing a single instance of a class. If it turned out that Kant could deduce the categories but could not justify their function in the construction of the cognitive object, then he would be unable to justify the Copernican turn.

Kant's approach is synthetic rather than analytic, hence based not on the analysis of a preexisting mind-independent object, but rather on its construction as a condition of its cognition. There is a superficial analogy between **(p.38)** the Kantian approach and certain forms of twentieth-century phenomenology, which restrict themselves to descriptions of what is present to mind only. Kant's deduction is not and in fact could not be based on description; for instance, on the careful description of how the psychological knowing process unfolds. The transcendental machinery Kant discusses within the framework of the transcendental deduction must operate in order for the cognitive subject to be conscious of the cognitive object or objects. In other words, the transcendental deduction is intended to identify what in Kant's opinion must occur on the preconscious, rather than on the conscious, level as its necessary precondition. It follows that the transcendental deduction is not descriptive but rather based on Kant's speculative reconstruction of what according to him must be the case in order for cognition to be possible.

I will end this account of Kant's cognitive theory in noting his own estimation of his achievement. There is a modern idea of philosophy as a historical discipline. According to this view, philosophy arises in an ongoing debate in which observers react to others in seeking to advance the discussion. This conception of philosophy as a historical discipline arose only in the debate after Kant. Kant holds an ahistorical—even antihistorical—view of his accomplishment and of philosophy in general. He thinks his preferred cognitive approach is not one among other possible approaches but rather the only possible solution. In this sense, Kant is basically

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opposed to, say, Hegel—who is often credited with the view that in his position, philosophy comes to a high point and to an end, but who also rather thinks that his position (like all others before and presumably after it) belongs to the history of the tradition.

Philosophers are not notable for their conceptual humility. Perhaps under Kant's influence, Husserl obviously pretends finally to make a true beginning. Kant clearly casts himself in the extraordinary role of the thinker who both finally begins and ends the philosophical tradition. He supposedly begins the philosophical tradition since all prior philosophical theories are merely dogmatic but undemonstrated assertions. The critical philosophy differs from its predecessors in that it provides an antecedent critique of its own capacity, or the capacity of pure reason (*CPR*, B xxxv, p. 119). If all prior philosophy is dogmatic, then by definition, philosophy worthy of the name would begin with Kant. His suggestion that there can never be more than a single true theory indicates that his position is the only one worth taking into account. In short, Kant can be understood as claiming that in the critical philosophy he both initiates and brings to an end philosophy worthy of the name through the absolutely definitive solution of the cognitive problem, a solution that since it is correct cannot be revised, a solution intended to stand forever. Since the **(p.39)** critical philosophy is the first example of a philosophy that is critical, it also marks the true beginning of philosophy. His critical philosophy further brings the tradition to an end since it in fact presents the unique solution to the cognitive problem. According to Kant, his position is final and unalterable, so that the cognitive debate, which he claims to end, will not and in fact simply cannot be resumed at some future time. He concedes that his presentation can be improved (for instance, stylistically) while calling attention to the link between his system and human reason in all its many forms. According to Kant, to change anything—anything at all—in his position would introduce contradictions into his system as well as so-called universal human reason (*CPR*, B xxxviii, p. 120).

There is an obvious difference between a theory that advances the ongoing debate and one that effectively brings the discussion to an end. Kant's view that he has ended the philosophical tradition in the critical philosophy appears to be multiply determined. This reflects his normative views of mathematics, science, and philosophical method. His interest in a supposedly unique solution to philosophical problems may also reflect his natural scientific background, according to which there is supposedly a unique solution for every problem. Though Newton had his critics, it is conceivable that when he brought out the *Principia*, at least some observers thought that physics—hence natural science—had reached a high point and an end. Kant seems to hold a view that a form of cognition that is really on the secure road to science would never later need to be revised. This conviction almost certainly also reflects his view of the a priori approach to cognition as a source of apodictic, or universal and necessary, cognition.

Like the statue of Ozymandias, Kant's ahistorical view that he has constructed a position that will stand forever was later eroded. There is a clear difference between Kant's belief that he proposes the permanent, unalterable solution to the cognitive problem and the shared post-Kantian idealist view that he advances the debate in important ways. Kant obviously thinks he has decided the cognitive question once and for all. However, the post-Kantian German idealists believe he put on the table an important suggestion that constitutes a huge step forward, but does not end the debate. His successors believe his proposed solution must neither be ignored nor accepted as is, but rather needs to be criticized, reformulated, and hence carried forward and completed. The post-Kantian German idealists were, in different ways, all occupied with this general task.

### Notes:

- (1.) The Platonic element in the critical philosophy is sometimes discussed with respect to moral theory. Scholars note that in the *Inaugural Dissertation* Kant advances a Platonic conception of God as moral perfection, which is still ingredient in the third *Critique*, but suggest—since he denies a grasp of the intelligible world—that Kant denies a Platonic conception of knowledge. Seung is closely identified with an approach to Kantian moral theory as normative Platonism. He sees Kant as struggling to combine normative Platonism and Cartesian a priorism in a single theory. See, for example, T. K. Seung, *Kant: A Guide for the Perplexed* (London: Continuum, 2007).
- (2.) Rawls is well known for his attention to a constructivist approach to Kant's moral theory. The term "constructivism" does not appear in Rawls's *A Theory of Justice*. It emerges only in later publications, such as "Themes in Kant's Moral Philosophy," in Eckart Förster, ed., *Kant's Transcendental Deductions: The Three "Critiques" and the "Opus postumum"* (Stanford: Stanford University Press, 1989), pp. 81–113; and "Kantian Constructivism in Moral Theory," *Journal of Philosophy* 77, no. 9 (September 1980): pp. 515–572, reprinted in John Rawls, *Collected Papers*, ed. Samuel Freeman (Cambridge, MA: Harvard University Press, 1999), pp. 303–358. According to Rawls, who links his view to Kant's, "Kantian constructivism holds that moral objectivity is to be understood in terms of a suitably constructed social point of view that all can accept." Rawls, *Collected Papers*, p. 307.
- (3.) Immanuel Kant, *Philosophical Correspondence, 1759–99*, trans. and ed. Arnulf Zweig (Chicago: University of Chicago Press, 1967), p. 71.
- (4.) I will be following here the distinctions drawn in Isabelle Thomas-Fogiel, *Le concept et le lieu: Figures de la relation entre art et philosophie* (Paris: Editions du Cerf, 2008), pp. 296–300. She in turn follows Marin. See Louis Marin, *Sublime Poussin* (Paris: Editions du Seuil, 1995).
- (5.) "La *Logique* élabore une théorie du signe en tant que doublon entre la chose représentée et la chose qui représente: le signe renferme deux idées: l'une de la chose qui représente; l'autre de la chose représentée; et sa nature consiste à exciter la seconde par la première." Antoine Arnauld and Pierre Nicole, *La logique ou l'art de penser*, part 1, *Le langage* (Paris: Flammarion, 1997), p. 4. See also Marin, *Sublime Poussin*; and Michel Foucault, *Les mots et les choses* (Paris: Gallimard, 1966).
- (6.) The traditional "externalist" interpretation of Locke has been challenged by Ott. See Walter Ott, "What Is Locke's Theory of Representation?" *British Journal for the History of Philosophy* 20, no. 6 (2012): pp. 1077–1095.
- (7.) John Locke, *Essay Concerning Human Understanding*, vol. 2, collated and annotated by A. C. Fraser (New York: Dover, 1959), part 8, p. 169.
- (8.) See, for example, Paul Guyer, *Knowledge, Reason, and Taste: Kant's Response to Hume* (Princeton, NJ: Princeton University Press, 2008).
- (9.) "The only possible argument in support of a demonstration of the existence of God," in Immanuel Kant, *Theoretical Philosophy*, trans. and ed. David Walford (New York: Cambridge University Press, 2003), p. 116.

(10.) Immanuel Kant, *Lectures on Logic*, ed. J. Michael Young (New York: Cambridge University Press, 1992), p. 440.

(11.) For instance, at *CPR*, B 306, p. 360, Kant writes: "Nevertheless, if we call certain objects, as appearances, beings of sense (*phaenomena*), because we distinguish the way in which we intuit them from their constitution in itself ... then it already follows from our concept that to these we as it were opposed, as objects thought merely through the understanding, either other objects conceived in accordance with the latter constitution, even though we do not intuit it in them, or else other possible things, which are not objects of our senses at all, and call these beings of understanding (*noumena*)."

(12.) By "appearance" Kant comprehends "that something must correspond to it which is not in itself appearance ... [since] the word 'appearance' must already indicate a relation to something the immediate representation of which is, to be sure, sensible, which is in itself, without this constitution of our sensibility ... must be something, i. e., an object independent of sensibility." *CPR*, B 251-252, p. 348.

(13.) For the difference between metaphysical and non-metaphysical readings of the critical philosophy, see Paul W. Franks, *All or Nothing: Systematicity, Transcendental Arguments, and Skepticism in German Idealism* (Cambridge: Harvard University Press, 2005), p. 16n.

(14.) See Hans Vaihinger, *Commentar zu Kants "Kritik der reinen Vernunft,"* vol. 2 (Stuttgart/Berlin/Leipzig: Union Deutsche Verlagsgesellschaft, 1892), p. 53.

(15.) Erich Adickes, *Kants Lehre von der doppelten Affektion unseres ich als Schlüssel zu seiner Erkenntnistheorie* (Tübingen: J. C. B. Mohr, 1929).

(16.) See P. F. Strawson, *The Bounds of Sense: An Essay on Kant's "Critique of Pure Reason"* (London: Methuen, 1966).

(17.) See Henry Allison, *Kant's Transcendental Idealism: An Interpretation and Defense* (New Haven: Yale, 2004).

(18.) "Now the propositions of pure reason, especially when they venture beyond all boundaries of possible experience, admit of no test by experiment with their *objects* ... thus to experiment will be feasible only with concepts and principles that we assume *a priori* by arranging the latter so that the same objects can be considered from two different sides, *on the one side* as objects of the sense and the understanding for experience, and *on the other side* as objects that are merely thought at most for isolated reason striving beyond the bounds of experience. If we now find that there is agreement with the principle of pure reason when things are considered from this twofold standpoint, but that an unavoidable conflict of reason with itself arises with a single standpoint, then the experiment decides for the correctness of that distinction." *CPR*, B xviii-xix, p. 111.

(19.) See, for example, Henry E. Allison, "The Two-Aspect Theory," in *New Essays on Kant*, ed. Bernard den Ouden and Marcia Moen (New York: Peter Lang, 1987), pp. 155-178.



(20.) See also J. S. Privette, "Must Theology Re-Kant?" *Heythrop Journal* (1999): pp. 166–183; James van Cleve, *Problems from Kant* (New York and Oxford: Oxford University Press, 1999); R. B. Pippin, "Idealism and Agency in Kant and Hegel," *The Journal of Philosophy* 88, no. 10 (1991): pp. 448–472; Lewis White Beck, *The Actor and the Spectator* (New Haven: Yale University Press, 1975); Ralph Meerbote, "The Weak, the Strong and the Mild: Readings of Kant's Ontology," *Ratio* 5, no. 2: pp. 160–176; Hoke Robinson, "Two Perspectives on Kant's Appearances and Things in Themselves," *Journal of the History of Philosophy* 32, no. 3 (July 1994): pp. 411–441; Karl Ameriks, *Interpreting Kant's Critiques* (Oxford: Oxford University Press, 2003), pp. 73–77; Frederick Beiser, *German Idealism: The Struggle against Subjectivism, 1781–2001* (Cambridge, MA: Harvard University Press, 2002), p. 608.

(21.) See Beiser, *German Idealism*, p. 601n10.

(22.) See Allison, *Kant's Transcendental Idealism*, p. 4.

(23.) For these criticisms and Allison's responses, see *ibid.*, *passim*.

(24.) See R 5554 (1778–1781) in Immanuel Kant, *Gesammelte Schriften*, vol. 18 (Berlin: die Königlich-Preussische Akademie der Wissenschaften zu Berlin, 1902–), pp. 229–331.

(25.) Augustine's conception of the moral subject is an important predecessor of the Cartesian cognitive subject. See Augustine, *On Free Choice of the Will*, trans. A. S. Benjamin and L. H. Hackstaff, (Indianapolis: Bobbs-Merrill, 1964).

(26.) See Ermanno Bencivenga, *Kant's Copernican Revolution* (New York: Oxford University Press, 1987). See also "What Is Copernican in Kant's Turning?", chapter 5 of Hans Blumenberg, *The Genesis of the Copernican World*, trans. Robert M. Wallace (Cambridge, MA: MIT Press, 1987), pp. 595–614; Daniel Bonevac, "Kant's Copernican Revolution," in Robert C. Solomon and Kathleen M. Higgins, *The Age of German Idealism*, New York: Routledge, 1993, pp. 40–65; S. M. Engel, "Kant's Copernican Analogy: A Re-Examination," in *Kant-Studien* 54, 1963, pp. 243–251; David Ingram, "The Copernican Revolution Revisited: Paradigm, Metaphor and Incommensurability in the History of Science—Blumenberg's Response to Kuhn and Davidson," *History of the Human Sciences* 6 (1993): pp. 11–35; and Pierre Kerszberg, "Two Senses of Kant's Copernican Revolution," *Kant-Studien* 80 (1989): pp. 63–80.

(27.) Paton typically writes: "Copernicus explained the *apparent* motions of the heavenly bodies as due to the motion of the observer on earth. Kant similarly explains the *apparent* characteristics of reality as due to the mind of the knower." H. J. Paton, *Kant's Metaphysic of Experience*, vol. 2 (London and New York: George Allen and Unwin and Macmillan, 1961), p. 75.

(28.) Ewing similarly writes: "It may seem that Kant's revolution was opposite rather than analogous to that of Copernicus since, while Copernicus put an end to the anthropocentric character of astronomy, Kant rather made philosophy anthropocentric. But Kant means that he resembles Copernicus in attributing to ourselves and so classing as appearance what his predecessors had attributed to reality." A. C. Ewing, *A Short Commentary on Kant's "Critique of Pure Reason"* (Chicago: University of Chicago Press, 1967), p. 16.

(29.) Höffe in the same way writes: "Kant's Copernican revolution maintains that the objects of knowledge do not appear of their own accord but must be brought to appearance by the

(transcendental) subject. They are thus no longer to be referred to things which exist in themselves but instantiated as appearances." Otfried Höffe, *Immanuel Kant*, trans. Marshall Farrier (Albany: State University of New York Press, 1994), p. 38.

(30.) See Michael Friedman, *Kant's Construction of Nature: A Reading of the Metaphysical Foundations of Modern Science* (New York: Cambridge University Press, 2013).

(31.) See Ernst Cassirer, *The Philosophy of Symbolic Forms*, vol. 3, trans. Ralph Manheim (New Haven, CT: Yale University Press, 1957), pp. 5, 9, 234.

(32.) See Martin Heidegger, *Kant and the Problem of Metaphysics*, trans. Richard Taft (Bloomington: Indiana University Press, 1997), §§2–3, pp. 6–12.

(33.) See Thomas Kuhn, *The Copernican Revolution: Planetary Astronomy in the Development of Western Thought* (Cambridge, MA: Harvard University Press, 1957).

(34.) See A. N. Pavlenko, *Evropeiskaja Kosmologija: Osnovaniya epistemologicheskovo Povorota* (Moscow: Intrada, 1997).

(35.) See Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996).

(36.) According to Hans Blumenberg, this suggestion was made first by Cotes. See Blumenberg, *Genesis*, p. 603.

(37.) See Isaac Newton, *Opera omnia*, vol. 2, ed. S. Horsley (London: Excudebat J. Nichols, 1779–1785), p. xiv.

(38.) See Edmund Husserl, *The Crisis of European Sciences and Transcendental Phenomenology*, trans. David Carr (Evanston: Northwestern University Press, 1970). It is known that the mathematization of nature began much earlier with the Pythagorean school, and then later with the Oxford school and Oresme in the fourteenth century.

(39.) According to Weinberg, important scientific theories are refuted only very rarely. He claims that no such theory has been experimentally refuted in this century. See Steven Weinberg, *Dreams of a Final Theory: The Search for the Fundamental Laws of Nature* (New York: Vintage, 1993), p. 102.

(40.) See Edmund Husserl, *Logische Untersuchungen*, vol. 1 (Tübingen: Max Niemeyer Verlag, 1980), §21, p. 62.

(41.) See Immanuel Kant, *Allgemeine Naturgeschichte und Theorie des Himmels, oder Versuch von der Verfassung und dem mechanischen Ursprunge des ganzen Weltgebäudes nach Newtonischen Grundsätzen abgehandelt*, in Immanuel Kant, *Werke in Zehn Bänden*, vol. 1, ed. Wilhelm Weischedel, (Darmstadt: Wissenschaftliche Buchgesellschaft, 1975), pp. 219–396.

(42.) See Isaac Newton, *Mathematical Principles of Natural Philosophy*, trans. A. Motte, revised by F. Cajori (Berkeley: University of California, 1934), p. 550.

(43.) See Kant, *Allgemeine Naturgeschichte*, p. 228.

(44.) See *ibid.*, p. 250.

(45.) Galileo Galilei, *The Assayer* (1623), cited in E. A. Burt, *The Metaphysical Foundations of Modern Science* (Garden City: Doubleday, 2003), p. 75.

(46.) According to Hintikka, who believes Kant's view of mathematical methodology is conceptually prior to his philosophical account of cognition, Kant's claim that mathematics differs from philosophy in the construction of concepts should be taken to mean that in mathematics, one is constantly confronted with the need to construct particular representatives—in a word, individuals—for general concepts. See Jaakko Hintikka, "Kant on the Mathematical Method," *The Monist* 51, no. 3 (1967): p. 356.

(47.) Immanuel Kant, *Metaphysical Foundations of Natural Science*, trans. with an introduction by James Ellington (Indianapolis: Hackett, 1970), p. 6.

(48.) Ibid.

(49.) See Morris Kline, *Mathematics: The Loss of Certainty* (New York: Oxford University Press, 1980), pp. 81–88.

(50.) See, for example, Plotinus, *The Enneads* trans. A. H. Armstrong (Cambridge, MA: Harvard University Press, 1996), 5th ennead, 3rd tractate, §5, pp. 85–89.

(51.) See G. W. Leibniz, "Discourse on Metaphysics," in *Leibniz: Basic Writings*, trans. George R. Montgomery (LaSalle, IL: Open Court, 1957), section 9, pp. 14–15.

(52.) See Paul Churchland, *The Engine of Reason, the Seat of the Soul* (Bradford Books, 1996).

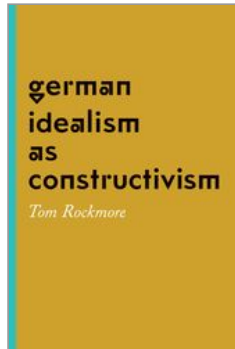
(53.) "A correspondence, moreover, can only be perfect if the corresponding things coincide and so are just not different things.... It would only be possible to compare an idea with a thing if the thing were an idea too. And then, if the first did correspond perfectly with the second, they would coincide. But this is not at all what people intend when they define truth as the correspondence of an idea with something real. For in this case it is essential precisely that the reality shall be distinct from the idea. But then there can be no complete correspondence, no complete truth. So nothing at all would be true; for what is only half true is untrue. Truth does not admit of more and less." "Thoughts," in Gottlob Frege, *Logical Investigations* (Oxford: Blackwell, 1977), p. 3.

(54.) Some observers (for instance, Pippin) think that identity arises only in Kant's wake as a criticism of the critical philosophy. "Other attempts to make good on what their criticisms of Kant required did not fare much better. Claims that the problem of knowledge could be solved only by defending a 'subject-object identity' sounded like bizarre claims that in some way ontologically identified human judgments with objects in the world (or, worse, that such judging activity and the natural world were both aspectual or modal manifestations of an underlying substance and so originally, substantively, identical)" (Robert Pippin, *The Persistence of Subjectivity: On the Kantian Aftermath* [Cambridge: Cambridge University Press, 2005], p. 44). I think, on the contrary, that Kant is already committed to an identity theory as a result of the so-called Copernican revolution.

(55.) Kant's claim of twelve and only twelve logical functions (and thus the suggestion of closure) is often disputed. See, for example, Stephan Körner, *Categorical Frameworks* (Oxford: Blackwell, 1970).

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### German Idealism as Constructivism

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Print publication date: 2016

Print ISBN-13: 9780226349909

Published to Chicago Scholarship Online: January 2017

DOI: 10.7208/chicago/9780226350073.001.0001

Reinhold, Maimon, and Schulze

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DOI:10.7208/chicago/9780226350073.003.0003

#### Abstract and Keywords

A number of non-idealist thinkers are important in the transition from Kantian idealism to post-Kantian German idealism. The second chapter, “On the transition from Kant to Fichte,” considers three such philosophers: Reinhold, Maimon and Schulze (pseud. Aenesidemus). I argue Reinhold’s foundationalist restatement of the critical philosophy is incompatible with Kant’s critical philosophy, hence incompatible with German idealism. Maimon, whose reading of the critical philosophy was accepted by Kant, criticizes Reinhold’s foundationalism, and influences Fichte and Hegel. Under the pseudonym Aenesidemus, Schulze is important for Fichte’s transcendental philosophy.

**Keywords:** Karl Leonhard Reinhold, Salomon Maimon, Gottlob Ernst Schulze, foundationalism, Immanuel Kant, Georg Wilhelm Friedrich Hegel

Post-Kantian German idealism begins with Fichte. The transition between Kant and post-Kantian German idealism was rapid and complex. Fichte’s initial and perhaps most important version of the *Wissenschaftslehre* (1794) (his name for his position) appeared only seven years after the second edition of the *Critique of Pure Reason* (1787). Since Kant continued to work nearly up until the end of his life, and since he only left the scene in 1804, this meant that, to his dismay, the reaction to his position—including post-Kantian German idealism—was well under way while he was still active.

After the appearance of the *Critique of Pure Reason* in 1781, the issue was quickly joined. Opinions were divided between those who rejected the critical philosophy in whole or in part, those who accepted it in whole or in part, and finally those who developed more or less original positions in reaction to Kant’s critical philosophy. His critics included such thinkers as Hamann, who, after reading the proofs of the book, famously objected before it was published that reason

could not sit in judgment on itself; Herder, Kant's erstwhile student, whose historicism his teacher sharply criticized; the intuitionist Jacobi; the skeptics Maimon and Schulze; Fichte, who loudly and implausibly proclaimed his utter fidelity to Kant while very obviously and deeply revising the critical philosophy, and many others. They were answered by Beck, a prominent contemporary Kantian defender, and others.

A number of Kant's initial readers quickly sought—almost before the ink on Kant's treatise was dry—to develop original theories in the guise of reformulations of the critical philosophy. Four non-idealist thinkers (Reinhold, Jacobi, Maimon, and Schulze) play roles of varying importance in this transition. The **(p.41)** most important example is Karl Leonhard Reinhold, who was extremely influential in the transition period between the appearance of Kant's *Critique of Pure Reason* and the rise of post-Kantian German idealism in the writings of Fichte, Schelling, and Hegel, who are usually taken to be the main post-Kantian German idealists.

Reinhold's contribution to Kant studies was controversial even in his own time. Initial views of his writings were starkly opposed. The poet Schiller, for instance, wrote to Körner in August 1787 that, according to Reinhold, in a century Kant would be mentioned in the same breath as Jesus.<sup>1</sup> Forberg, Reinhold's student, was more direct but exceedingly less enthusiastic. He suggested that Reinhold had caused many kinds of damage to the Kantian philosophy.<sup>2</sup> Yet even today, no one disputes Reinhold's influence. According to Ameriks, "Fichte, Schelling, Schiller, Hölderlin, Novalis, and Friedrich Schlegel all developed their thought in reaction to Reinhold's reading of Kant."<sup>3</sup> Since Reinhold's position was constantly in flux, it is not surprising that it is understood in different ways. He seems to be most easily understood as proposing a Cartesian foundationalist restatement of the critical philosophy. But he is also sometimes understood as taking a historical turn, which observers sometimes identify with Hegel,<sup>4</sup> or even as inventing German idealism.<sup>5</sup>

Whether Reinhold is an "idealist" depends on how the term is interpreted. His relationship to the later fortunes of the Kantian position is complex. He arguably misunderstands the critical philosophy, and further overlooks the epistemic importance of Kant's central insight, the Copernican revolution. His philosophical views are important in the immediate context, though less so than the views of the philosophical giants of the period. Reinhold, who is unconcerned by Kant's idealism, is rather concerned with reconstructing the critical philosophy in systematic form. He does not contribute directly to post-Kantian German idealism, and hence does not contribute to the general constructivist approach to cognition. Yet his indirect contribution is extremely important since, through his restatement of the critical philosophy in systematic (or at least more systematic) form, he begins the debate about the post-Kantian reconstruction of Kant's position that rapidly led to post-Kantian German idealism.

Almost as soon as he began to write about Kant, Reinhold attracted sustained attention. His effort to develop the critical philosophy as a foundationalist system is Kantian as well as profoundly anti-Kantian in a number of ways. It is Kantian in that the author of the critical philosophy famously identifies the ideal of a system derived from a single principle as the indispensable condition of science. This aim is clearly suggested in modern philosophy by the **(p.42)** Cartesian system that can be read as deriving from, hence as justified by, the cogito. Descartes—who is as much a mathematician as a philosopher, and made important contributions to geometry—relies on a Euclidean geometrical model in his conception of system. Unlike Descartes, whose idea of a system based on a single principle is unclear, Euclid does not begin

with a single principle. Descartes seems to call for such a system as well as to question both its possibility and necessity. In a letter to Clerselier in June or July 1646, he writes:

One must not make it a condition of a First Principle that it be so constituted that all the other propositions can be derived from it or proved by it. It is enough if it is such that, taking it as a starting point, other things can be discovered and that no other principle occurs on which it depends or that could be discovered prior to it. For it might be the case that there is no principle in the whole world from which alone everything else can be derived.<sup>6</sup>

Kant's view of system is complex. In the precritical *Nova dilucidatio*, he seems to deny that there can be a single first principle, and hence to reject epistemic foundationalism. In the critical period, unlike Descartes, his earlier doubt about the possibility of a system based on a single idea has meanwhile vanished. In a well-known passage on the "architectonic," he defines this term as "the art of systems," adding that a system transforms what would otherwise be "a mere aggregate" into a science. He then adds: "I understand by a system ... the unity of the manifold cognitions under one idea" (*CPR*, B 860, p. 691). Kant makes a similar statement in the *Prolegomena*, in writing: "Nothing can be more desirable to a philosopher than to be able to derive a priori from one principle the multiplicity of concepts or basic principles that previously had exhibited themselves to him piecemeal, in the use he had made of them *in concreto*, and in this way to be able to unite them all in one cognition."<sup>7</sup> Both passages suggest that a system based on a single idea as exemplified in the Cartesian model is the criterion of a fully scientific approach to cognition. Hence, with Kant's written approval ringing in his ears, Reinhold felt justified in embarking on a fully systematic reformulation of the critical philosophy.

There are at least five reasons to consider Reinhold in the debate concerning the systematic reconstruction of the critical philosophy. As the author of the *Letters on the Critical Philosophy* (1786–1787) and as the holder of the first chair devoted to the critical philosophy at the University of Jena starting in 1787, Reinhold had a central early role in calling attention to Kant's theories.

Second, as concerns Kant, Reinhold is a pioneer, a conceptual explorer who discovers but fails to describe to any degree a new continent of thought (**p.43**) in proposing a basic reformulation of the critical philosophy—in his case, as a foundationalist system. Reinhold, who claims for the first time to formulate the rigorous scientific system for which the critical philosophy is only the propaedeutic,<sup>8</sup> seemed—at least initially, to Kant as well—to contribute to the critical philosophy. His concern to restate the critical philosophy as a system appeals to the unity of cognition through an underlying principle, or foundation.<sup>9</sup> It was only later that Kant, as well as other observers, became aware that what Reinhold intended was incompatible with the Kantian position.

Third, and as noted, before he understood Reinhold's intentions, Kant warmly accepted him as an early friendly expositor of the critical philosophy.<sup>10</sup> Kant's desire to acknowledge Reinhold's contribution in this regard is not difficult to comprehend. It is well known that his exasperation about the early critical reaction (especially the notorious Garve-Feder review in 1782) of the first edition of the *Critique of Pure Reason* was a factor in his decision to write the *Prolegomena*, which appeared only a year later, as well as to bring out a second edition of his major treatise.

Fourth, Reinhold—not surprisingly, as the result of his endorsement by Kant—was widely believed by contemporaries to be proposing a nearly identical doctrine in the form of his so-called elementary philosophy.<sup>11</sup> Finally, in his writings on Kant Reinhold began the effort by many hands, which has since never ceased, to reformulate the critical philosophy. It is fair to say that the entire later Kant discussion is composed either directly or indirectly of a series of responses to Reinhold's endeavor to reconstruct Kant's position.

Reinhold, who quickly changed his position, was, like Schelling, a protean figure, though without the latter's obvious brilliance. Reinhold's own position, which he called the elementary philosophy, rapidly passed through a series of stages prior to its abandonment by its author.<sup>12</sup> During this period, Reinhold's views are inseparable from his interpretation, defense, and revision of the critical philosophy. Reinhold's interest in Kant, which was quickly exhausted, was just as quickly replaced by his successive interest in such post-Kantians as Fichte (like Kant, a major figure) and C. G. Bardili (an extremely minor figure, one of Hegel's early teachers in the seminary and the author of a work on logic).

Though as a thinker he was not on the same level as the great post-Kantian German idealists, Reinhold exerted enormous influence in the context of the early reception of the critical philosophy. According to Kroner, Reinhold deserves mention since "Reinhold is one of those who mediated between the *Critique of Reason* and the *Wissenschaftslehre*, and therefore he must not be omitted from any delineation of the path from Kant to Fichte."<sup>13</sup> This tepid (p.44) suggestion vastly understates the case. Reinhold, in anticipating Fichte, claims to be able to provide full confirmation of Kant's results in the first *Critique* in independence of Kant.<sup>14</sup> Fichte later makes a similar claim. According to Nicolai Hartmann, contemporaries saw Kant's philosophy in the light of Reinhold's, and the differences appeared unimportant.<sup>15</sup> Schulze, a contemporary skeptic, takes Reinhold as merely offering a more advanced form of the critical philosophy, so that in criticizing Reinhold he was also criticizing Kant.

Hegel, who was sharply critical of Reinhold in the *Differenzschrift* but more favorable in the *Science of Logic*, does not discuss the elementary philosophy in his *Lectures on the History of Philosophy*. A more nuanced assessment of Reinhold's importance emerged only after German idealism; for instance, in the post-Kantian speculation after Hegel's death (1831) by Hegel's student K. L. Michelet.<sup>16</sup> Still more sympathetic accounts of the elementary philosophy are formulated later by such Hegelian historians of philosophy as Johann Eduard Erdmann and Kuno Fischer.<sup>17</sup> Other observers consider Reinhold an example of how not to interpret Kant. In the twentieth century, this approach is represented by the Hegelian Kroner and the neo-Kantian Cassirer. The latter claims Reinhold falls into a typical psychologistic misunderstanding of the critical philosophy.<sup>18</sup>

Recent English-language discussion of Reinhold has been friendlier to Reinhold. According to Breazeale, Reinhold is extremely important and his view that philosophy needs to be systematic and grounded in a first principle is basically sound. Yet there is truth in di Giovanni's claim that few philosophers are as badly misunderstood by their contemporaries as Kant.<sup>19</sup> Despite superficial similarities, Kant and Reinhold certainly have basically different conceptions of system in mind. Though Reinhold was concerned with an important theme, he simply leads in the wrong direction from the perspectives of either the critical philosophy or post-Kantian German idealism.

It goes beyond the limits of the present discussion to consider the merits of Reinhold's elementary philosophy. We will restrict our attention to its relation to the critical philosophy. Reinhold's grasp of the critical philosophy is obviously suspect; in a letter dated October 12, 1787, he wrote to Kant to say that he could understand only the way the author of the critical philosophy developed "fundamental truths of religion from the foundations of moral knowledge" and that he found the critical philosophy useful to "overcome the unfortunate choice between superstition and belief."<sup>20</sup> Kant replied that Reinhold exactly understood his view in a letter of December 28, 1787.<sup>21</sup> In still another letter, dated September 21, 1791, Kant apologizes to Reinhold for not **(p.45)** writing.<sup>22</sup> However, he nearly immediately changed his mind. In a later letter to Jacob Sigismund Beck (September 27, 1791), he indicated he did not follow Reinhold's ideas as well as his understandable unease at the need for a new foundation for the critical philosophy.<sup>23</sup> In a letter to Beck dated November 2, 1791, Kant further complains that Reinhold's theory of the faculty of representation was appallingly obscure. This is false, since Reinhold is a mainly clear writer. Kant's suggestion that Reinhold was unlikely to be influential was also mistaken; the latter's efforts to grapple with the critical philosophy quickly led to post-Kantian German idealism.<sup>24</sup>

Reinhold's early concern to attract attention to Kant sharply differs from his later effort to revise the critical philosophy. His discussion of Kant began in a series of *Letters on the Kantian Philosophy* (*Briefe über die Kantische Philosophie*), which appeared in 1786–1787 in *Der Teutsche Merkur*, an important Weimar journal, and later in a second edition in book form in 1790. Reinhold's intention in this text is to protect Kant's critical theory against the meta-criticism leveled against it by Herder. In comparison to the extreme difficulty of the first *Critique*, Reinhold's *Letters on the Kantian Philosophy* is a semipopular work. It was extremely influential—even, according to James Hebbeler, the editor of a recent translation, the most influential of the very many books concerning Kant.<sup>25</sup> In a letter to Herder, Reinhold indicates in dramatic terms his desire to be one of the "voices in the desert" to "prepare the way" for the "second Immanuel."<sup>26</sup> It is for this reason that Schopenhauer later compared him to the first apostle.

Reinhold's work had the considerable merit of offering comparatively easy access to Kant's difficult position. On the strength of the *Letters*, Reinhold was appointed to the first chair for the study of Kant's philosophy in Jena. Through his efforts, he helped to transform Jena into a center of Kant studies. He was later followed in Jena by Fichte, Schelling, and Hegel. Each of them was strongly influenced by Kant, and all of them, unlike Reinhold, were thinkers of the first rank.

Reinhold clearly influenced the early reception of the critical philosophy and may also have influenced Kant. The latter was revising the first edition of the *Critique Pure Reason* as Reinhold's *Letters* began to appear. The First Letter, which came out in August 1786 (before the second edition of the *Critique of Pure Reason*), refers to the relationship between Kant and revolution,<sup>27</sup> and then to Kant and Copernicus (and also to Newton).<sup>28</sup> Reinhold seems here to anticipate Kant's famous remarks comparing his view and Copernican astronomy in the B preface. Yet, despite this allusion, unlike the post-Kantian **(p.46)** German idealists, Reinhold apparently never grasps either here or elsewhere the cognitive importance of Kant's Copernican revolution, and hence never comprehends the arguably central insight of the critical philosophy.<sup>29</sup>



The *Letters* turn away from Kant's difficult approach to cognition to focus on concrete practical and religious themes.<sup>30</sup> Reinhold, a former Catholic priest with liberal leanings, further attracted attention to Kant's religious views. He suggested, before Kant wrote *Religion within the Bounds of Reason Alone* (1793), that the critical philosophy shows how to support rational religion and morality. For instance, in the Second Letter, he argues that Kant helps us avoid the alternative between faith and reason in a rational faith.<sup>31</sup>

Kant's successors, including Reinhold, found fault not only with the form of Kant's theories but also with their content. As early as the *Attempt at a New Theory of the Human Capacity for Representation* (*Versuch einer neuen Theorie des menschlichen Vorstellungsvermögens*, 1789), Reinhold focuses on identifying, explaining, and justifying Kant's premises through the introduction of a new theory of the capacity of representation (*Vorstellungsvermögen*).

This view is further developed in the awkwardly named *Contributions to the Correction of Previous Misunderstandings of Philosophers* (*Beyträge zur Berichtigung bisheriger Missverständnisse der Philosophen*), published in two volumes (1790, 1794). In the first volume of this work, entitled *Concerning the Foundation of the Elementary Philosophy* (*Das Fundament der Elementarphilosophie betreffend*), Reinhold formulates the principle of representation, the basic concept of his position during its Kantian phase,<sup>32</sup> as follows: "In consciousness, the representation [Vorstellung] is distinguished from both subject and object, and related to both."<sup>33</sup> Slightly later, he published a concise précis of his position entitled *On the Foundation of Philosophical Knowledge* (*Über das Fundament des philosophischen Wissens*, 1791), where he briefly passes in review the major themes of the fundamental philosophy.<sup>34</sup>

Reinhold, who was an extremely protean thinker, was attracted in rapid succession to the theories of Kant, Fichte, and then later Bardili.<sup>35</sup> Reinhold's aim to ground Kant's critical philosophy was a central influence in the thought of this period, as witness his exchange of letters with Kant, Jacobi, Fichte, Maimon, and others.

In 1794, he left Jena for Kiel. In 1797, he abandoned his elementary philosophy and became a disciple of Fichte,<sup>36</sup> whom he also influenced.<sup>37</sup> (I come back to this theme below.) In a series of letters between them, Reinhold accepted Fichte's view in renouncing his own position. Yet as soon as the atheism controversy emerged, Reinhold turned away from Fichte, and, after a short **(p.47)** period in which he was a follower of Jacobi, in 1800 his allegiance, as noted, shifted to Bardili.<sup>38</sup>

C. G. Bardili was a minor anti-Kantian, who tended toward a pre-Kantian form of objective realism but opposed any subjective contamination of knowledge. He appealed to logic as the ground of philosophy. According to Reinhold, Bardili's position falls between the views of Fichte and Jacobi and supersedes the *Wissenschaftslehre*.<sup>39</sup> Bardili was considerably younger than Reinhold and may well have been influenced by him, as Fichte later claimed. Certainly Bardili's concept of representation is a central theme in Reinhold's position, both prior to and after their philosophical encounter. In a volume of letters between them, which he later edited, Reinhold notes in the preface that his review of Bardili was the first to appear.<sup>40</sup>

In Bardili's capacity as preceptor of the Tübinger Stift during Hegel's student years there, before he moved to a professorship in Stuttgart, he was well known to, but not well thought of by, Hegel. Bardili influenced Reinhold, but was strongly criticized by Fichte and Hegel. Fichte, who reviewed Bardili's reduction of philosophy to logic, was answered by Reinhold, to whom he in turn replied.<sup>41</sup> According to Fichte, Bardili's reduction of philosophy to logic was no more

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than an edulcorated version of Reinhold's elementary philosophy.<sup>42</sup> This in turn explains Reinhold's interest in Bardili's theories. Hegel strongly criticizes Bardili in the *Differenzschrift*. (I come back to this point below.)

Reinhold's view evolved unusually quickly. He typically became interested in and highly enthusiastic about a particular thinker before becoming just as quickly disillusioned. Reinhold's interest in Kant was brief but very significant. He was never simply a disciple, though he was that as well during a brief period in which he recommended the critical philosophy as "this masterpiece of the philosophical spirit."<sup>43</sup> Yet only a year earlier (1785) Reinhold was defending Herder's *Ideen zur Philosophie der Menschheit* against Kant's harsh reviews.

This brief account of Reinhold's changing series of philosophical allegiances illustrates as well as reflects the rapidly evolving debate about reformulating the critical philosophy. This debate was set in motion by the elementary philosophy. Yet several years later, this position was no longer held, even by its author. And when Hegel, less than a decade later, began to write in context of the continuing discussion of the critical philosophy, the form of Reinhold's view to which he reacted was no longer in an early, more significant phase but was rather a distant, nearly unrelated successor, formulated under the influence of Bardili. However, even after the most interesting stage of a **(p.48)** philosophical position, which was never more than modestly important, Reinhold continued to play the role of a conceptual catalyst in the evolution of the post-Kantian discussion through his reception by Hegel.

Reinhold describes the elementary philosophy in more than one text. *On the Foundation of Philosophical Knowledge* has the advantage of being concise as well as presenting a mature form of this most protean position. As early as the preface, Reinhold raises the question of the form appropriate to science in order to justify the elementary philosophy. He remarks that neither logic, metaphysics, ethics, natural theology, nor the *Critique of Pure Reason*, nor any other empirical science, insofar as it presupposes philosophy, possesses "secure, recognized, generally valid foundations."<sup>44</sup> He further remarks the necessary foundation will be lacking until a fundamental philosophy is elaborated as "a science of the common principles of all particular philosophical sciences."<sup>45</sup> Otherwise stated, the elementary philosophy is intended as the science of principles supposedly presupposed by, as well as necessary to, grounding any and all forms of philosophical science.

This definition of elementary philosophy is justified by Reinhold's reading of the philosophical tradition. Following Aristotle, Kant, and many others, Reinhold seizes on circularity to refute major modern cognitive positions, including the critical philosophy. According to Reinhold—for whom the main modern cognitive theorists are Locke and Leibniz, Hume, and Kant—modern philosophy fails to carry out its task, which is completed in his own position. In different ways he disqualifies all the main preceding theories. Thus Locke's empiricism and Leibniz's rationalism are precritical, since they dogmatically assume but fail to justify their respective presuppositions. Locke's and Leibniz's adherents defend their respective theories only through a circular, hence inadmissible, form of reasoning. Hume refutes Locke's and Leibniz's presuppositions in overturning their positions. Kant does the same for dogmatic skepticism.

Reinhold, who devotes special attention to Kant, claims the critical philosophy is based on a simple presupposition incapable of demonstration: "Its meaning can be explained only through its application, but in no way can it be developed or justified without a circle."<sup>46</sup> Kant discovered a new foundation of philosophical science that contains everything that is true in preceding unsystematic thought. Yet this foundation is neither broad enough nor secure enough to support

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the entire scientific structure of philosophy. Kant's theory, which is only part of metaphysics, does not provide a thorough treatment of the general principles of the critique of reason. Reinhold, who reads the elementary philosophy into the critical philosophy, believes Kant shows that the **(p.49)** real foundation of philosophy is the fact of consciousness ("Thatsache des Bewusstseins").<sup>47</sup>

In Jena, Reinhold tempered his initial enthusiasm for Kant's thought in pointing to the imperfect manner in which it was stated. In following Kant, he insists on the need for philosophy to become fully scientific. Scientific philosophy demands consistency and completeness. This in turn requires the logical interrelation between propositions that depends on a single basic principle or epistemic foundation, which Reinhold identifies as his capacity for representation.

Reinhold's "critical" reading of the modern philosophical tradition presupposes a rationalist normative standard. As in the Cartesian position, cognition must be based on a single Archimedean point—in this case, the capacity of representation. Reinhold describes this principle, which supposedly arises as a fact in consciousness, as indemonstrable but self-evidently true. He thinks that through this principle, he is able to provide an unshakable foundation for the elementary philosophy, which—in closely Kantian fashion—he regards as the condition of the possibility of all science of whatever kind, and accordingly as the source of all cognition.

Reinhold's conception of a first principle differs in certain respects from preceding views.<sup>48</sup> Since the first principle must have content and be true, he rejects efforts to rely on a formal principle as in Leibniz.<sup>49</sup> The fundamental principle must also be self-evidently true as universally valid and accepted as such.<sup>50</sup> According to Reinhold—who at this point is very obviously a Cartesian cognitive foundationalist—either there is a first principle or philosophy is impossible.<sup>51</sup>

Cognitive foundationalism is better understood as a strategy for knowledge than as relevant to the critical philosophy. Since Kant can be read as rejecting foundationalism, Reinhold's claim to carry further and complete Kant's position is suspect. Reinhold contends that the model is old but the materials needed to construct a scientific philosophy are at hand in the *Critique of Pure Reason*, which, though not sufficiently rigorous, needs only to be revised and recast.<sup>52</sup> A similar idea was later imported into the Marxist debate in Habermas's effort to revise historical materialism by taking it apart and putting it back together again in the shape of a new and supposedly more effective position.<sup>53</sup>

Reinhold's huge impact on the later debate is enormously greater than the modest nature of his own theory. His importance in the early reception of the critical philosophy derives from his ability to provide a simple statement of some main ideas—enormously simpler than Kant's—and to propose what at the time seemed to be an important further stage in its development. However, **(p.50)** though apparently promising, both developments are illusory. Reinhold does not detect what is original in Kant and also does not understand the critical philosophy very well. He proposes a concept of system different from and incompatible with Kant's position, which he reformulates in the elementary philosophy in a way clearly inconsistent with its letter as well as its spirit.

Reinhold's proposed solution—allegedly Kantian in manner—of the cognitive problem quickly provoked heated debate. It was argued that since the critical philosophy was already complete in its original formulation, it did not require a reconstruction of the type suggested by Reinhold

or in general. Further, Kant's critique of Reinhold's effort to reform the critical philosophy led to a searching examination of the elementary philosophy, an effort associated above all with Fichte. Finally, by a wave of the conceptual magic wand as it were, circularity—which from the time of Aristotle until the post-Kantian debate had mainly been regarded as an insuperable epistemic liability—was transformed into a necessary ingredient for cognition. The series of reactions called forth either directly or indirectly by the elementary philosophy are associated respectively with the names of Maimon and Schulze, Fichte and Hegel.

### Maimon, Schulze, and Cognitive Circularity

Maimon and Schulze were contemporary skeptics in the later eighteenth century. Maimon is by far more important as concerns the intrinsic interest of his position, even if Schulze is more influential in the debate concerning the reformulation of Kant's position. Maimon deeply impressed his contemporaries, including both Kant and Fichte. Maimon's significance in the discussion—in which seemingly each and every participant routinely raised the claim to formulate a unique but wholly satisfactory account of the critical philosophy—is attested to by none other than its author. In a letter to Herz dated May 26, 1789, in discussing the manuscript of Maimon's *Attempt at Transcendental Philosophy* (Versuch über die Transzendentalphilosophie), Kant clearly states that the latter's reading of the critical philosophy is unrivaled for its grasp of the main problem.<sup>54</sup> Not surprisingly, Kant declined to help Maimon in publishing his book, which was largely directed against the critical philosophy. Yet Kant notes that he agrees with Maimon on the need to reformulate the principles of metaphysics. Fichte holds a similar but still more positive view: in a letter he states that his admiration for Maimon's talent was limitless, and adds in melodramatic tones that future centuries will look down on those who (p.51) looked down on Maimon, who had overturned the way Reinhold and others generally understood the critical philosophy.<sup>55</sup>

Maimon is critical but also highly appreciative of the critical philosophy. Though an epistemic skeptic, in *Essay on Transcendental Philosophy* he clearly states "The great Kant supplies a *complete idea* of transcendental philosophy (although not the whole science itself) in his immortal work the *Critique of Pure Reason*."<sup>56</sup> This statement echoes Kant's claim in the *Prolegomena* to provide the foundations of the future science of metaphysics, but not the science itself. Yet Maimon disagrees with Kant about the latter's famous claim to supply the *quid juris*, or justification of knowledge. According to Maimon, the transcendental deduction and the schematism of the categories do not resolve the cognitive problem. Maimon also differs about the concept of pure intuition, which is central for Kant, but for Maimon either does not exist or does not carry out the task Kant assigns to it. Maimon further disagrees about the status of the thing in itself. He holds that the thing in itself stands only as an object of inquiry, rather than an independent, noumenal entity.<sup>57</sup> According to Maimon, it is "nothing other than the complete cognition of appearances. Metaphysics is thus not the study of something apart from experience, but rather merely of the limits (Ideas) of experience itself."<sup>58</sup> Yet in other respects, he is close to Kant, particularly as concerns the crucial insight that we know only what we in some sense construct.

Maimon's reaction to Reinhold is available in an exchange of letters between the two thinkers he later collected and published with an accompanying philosophical manifesto. In addition to its evident philosophical interest, this book has a personal side rare in the normally arid philosophical literature. The letters reveal Maimon's increasing frustration at Reinhold's refusal (or, more likely, incapacity) to engage in serious discussion on the grounds that he finds the other view incomprehensible. According to Maimon, Reinhold belongs to that class of thinkers

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who think through concepts without concerning themselves sufficiently with the objective reality of ideas underlying their proofs, and which in Reinhold's case are mainly false.<sup>59</sup> Goethe seems to have a similar view of Reinhold. In a letter to Jacobi, he reports: "Reinhold ... was never able to go out of himself, and to be anything at all he needed to remain within a narrow circle. It was impossible to have a conversation with him, and I have never been able to learn anything through him or from him."<sup>60</sup>

This importance of this passage surpasses its personal nature. It establishes that Maimon's view of Reinhold presupposes the latter's relation to Kant. Hence it presupposes an independent interpretation of the critical philosophy. **(p.52)** Though critical of Kant, Maimon is convinced the critical philosophy is already fully developed. According to Maimon, the reformulations proposed in the immediate post-Kantian period were more apt to lower than to raise the level of Kant's position.<sup>61</sup>

The significance of this claim is almost self-evident. Maimon is not suggesting that Kant's thought is beyond amelioration. But as concerns the intrinsic subject matter, no progress can be made. This implies that the debate set in motion by Reinhold cannot improve or, even less, perfect Kant's position. Yet the debate about Reinhold's foundationalist reformulation of the critical philosophy was certainly philosophically useful, since it eventually led to the positions of Fichte, Schelling, and Hegel.

Maimon's verdict on the elementary philosophy is a function of its claim to found knowledge in an initial principle. He concedes that Reinhold's "law of consciousness" expresses a fact (which no one would deny). Yet he holds that, other than through confusion, neither a transcendental nor a psychological deduction can show that this principle (*Satz*) is an ultimately primitive fact (*ursprüngliches Faktum*) without falling prey to circular reasoning (*ohne einen Zirkel zu begehn*).<sup>62</sup>

In short, Maimon grants the purely factual nature of Reinhold's principle of consciousness, but disallows the further claim made on its behalf. In effect, he raises against Reinhold the same sort of objection the latter previously brought against the major positions he identifies in the modern philosophical tradition. Reinhold's strategy consists in appealing to a factual resolution of a supposed conceptual impasse. He aims to circumvent the inability of theory to ground itself without falling into circular reasoning. Maimon points out that this strategy fails since it only leads to a similar result. In short, Reinhold's effort to found the critical philosophy through invoking the capacity of representation presupposes Kant's transcendental deduction. Hence, as Maimon indicates in a letter to Kant dated November 30, 1792, it is not possible to go further than Kant in establishing a ground prior to the critical philosophy.<sup>63</sup>

Maimon's objections to Reinhold concern the limits of system, and finally the possibility of a foundation in the latter's sense of the term. In a letter to Reinhold, Maimon notes he links necessity and validity to system based in facts in suggesting that claims to truth, for instance in science, need not be a priori at all. Maimon writes:

We have chosen different philosophical methods. For your system, necessity and absolute universal validity are of paramount importance. Hence you ground your philosophy on facts that are most appropriate to this goal. For me **(p.53)** truth is the most important even if it is demonstrated in a way that is less systematic, absolutely necessary and

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universally valid. Newton's *Principia*, which contribute so much to the extension of our knowledge of nature, are for me more important than every theory of the faculty of *a priori* cognition, which can only be used to deduce what is already known (although of course less rigorously), and which is itself grounded in undemonstrated propositions.<sup>64</sup>

In his letter to Kant dated September 20, 1791, Maimon further contests Reinhold's principle of representation from a closely Kantian perspective. Maimon questions whether in every conscious experience the representation is distinguished, as Reinhold claims, from both the subject and the object. Following Kant, Maimon claims that an intuition becomes a representation only when it is united with other intuitions through synthesis. The synthesis that results is related to the represented object.

According to Maimon, Reinhold's principle is valid only in the special case that there is consciousness of the representation. Maimon notes it is a delusion to believe that every intuition is related to a real object.<sup>65</sup> In still another letter, dated November 30, 1792, Maimon criticizes Reinhold's as well as Kant's views of representation.<sup>66</sup> Since Kant did not answer either letter, we do not know how he would have responded to Maimon.

Maimon's criticism disposes of Reinhold's specific strategy to provide an ultimate justification of knowledge by grounding the capacity of presentation in a fact. He goes beyond specific criticism in order to make a more general point. According to Maimon, it is neither possible nor necessary to demonstrate the truth of initial principles. We are not concerned about their reality, possibility, or actuality. We are rather interested in their contribution to justifying the deduction of science in the form of a systematic unity. For instance, in the realms of higher mathematics and physics, principles have the status of mere fictions invoked to explain a given appearance (*Erscheinung*). But other than that, they remain hypothetical. Even if principles appear to be self-evidently true, they cannot be verified. It is not possible to show anything more than the need to appeal to them.<sup>67</sup>

The extraordinary interest of Maimon's criticism is by no means limited to the immediate context. His very general point counts against the entire post-Kantian discussion concerning the systematic reformulation of the critical philosophy. According to Maimon, this debate is superfluous, since knowledge as such neither requires nor admits of an ultimate justification. In this way, Maimon surpasses the quasi-Cartesian foundationalist approach in German philosophy espoused by Reinhold and many who reacted to him while **(p.54)** anticipating later interest in ungrounded epistemology. Long before Nietzsche, and in a more precise form, Maimon can be said to raise a fundamental objection against the need for and possibility of a foundationalist form of philosophical system. But as is often the case in philosophy, the most profound thinkers are not heard rapidly, if indeed they are heard at all. Therefore it should not come as a surprise that Schulze's more systematic but superficial critique of Reinhold was also more influential in the post-Kantian context.

### Schulze's Skeptical Critique of Reinhold

G. E. Schulze (pseud. Aenesidemus) intervened in the debate with a book whose full title reads *Aenesidemus, or on the Bases of the Elementary Philosophy Proposed by Professor Reinhold in Jena: Together with a Defense of Skepticism against the Presumptions of Rational Critique*. Schulze's critique of Reinhold appeared anonymously under the pseudonym Aenesidemus. This

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critique needs to be understood against the background of Schulze's own system, whose outlines are already apparent in the complicated title of this book.

Schulze is above all a skeptical thinker, as is evident in the choice of his pseudonym. Aenesidemus was a leading Greek skeptic who renewed the teachings of Pyrrhonism in Alexandria in the first century BC. Skepticism, as Schulze understands it, sets itself in opposition to any restricted claim to know of whatever sort. For this reason, Schulze's discussion of Reinhold is not an end in itself. Though much of the discussion in this work in fact directly concerns Reinhold, Schulze's interest is not in the position as such, but rather in it as representative of the critical philosophy.

Schulze, who is an opponent of Reinhold's neo-Cartesian approach to cognition, begins by denying (as early as the title of his book) Reinhold's intention to found the critical philosophy. Reinhold's version of epistemic foundationalism presupposes the need to base all knowledge on no more than a single principle or foundation. In choosing the plural term "bases" (*Fundamente*), Schulze clearly signals his unwillingness even to consider the idea that all knowledge can be grounded in a single foundational principle in favor of an analysis of the foundations of Reinhold's position.

Schulze detects an opposition between critical reason (*Vernunftkritik*) and skepticism (*A*, p. 2). Reinhold intends to carry out the task begun by Kant. According to Schulze, skepticism cannot accept the claim either to the certainty or the universality of the basic propositions (*Grundsätze*), or premises on which the critical philosophy is based (*A*, p. 15). Hence, skepticism is unaffected either by the critical philosophy or by Reinhold's reformulation of it.

**(p.55)** Schulze correctly perceives an opposition between the critical philosophy and skepticism, though perhaps not in the simplistic fashion he suggests. Kant's view of skepticism avoids any simple opposition through an important distinction between the skeptical method and skepticism. According to Kant, skepticism as such is intended to defeat any claim to knowledge; it is a "principle of technical and scientific ignorance ... which strives in all possible ways to destroy its reliability and steadfastness" (*CPR*, B 451, p. 468).

On the contrary, the skeptical method concerns itself with the resolution of disputes arising within the understanding. It aims at "certainty" (*Gewissheit*) through the discovery of "the point of misunderstanding in the case of disputes which are sincerely and competently conducted by both sides" (*CPR*, B 452, p. 468). As so defined, the skeptical method is fully in accord with—and in fact indispensable for—Kant's position, as Schulze stresses. It is above all required for an account of the antinomies of reason. But skepticism is to be rejected, for lack of knowledge—which can never be an end point of the discussion—is rather the cause of its beginning (see *CPR*, B 786, pp. 652–53).

To put the point in another way: in the development of pure reason, skepticism—the counter to dogmatism—must give way before "the *critique* of pure reason" (*CPR*, B 789, p. 654). Hence, Schulze and Kant basically disagree about skepticism. Schulze holds it is sufficient merely to refute any and all claims to know, as he tries to do here. Kant, on the contrary, believes that the task of the criticism of other views is merely a necessary preparation to the formulation of a truly critical position.

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Schulze's skeptical critique of Kant, which runs counter to the latter's view of skepticism, is external, not internal, since it is not based on any idea, principle, or concept that Kant accepts. The simplistic fashion in which Schulze opposes Kant's understanding of skepticism as well as the critical philosophy determines the entirely negative, philosophically jejune manner in which he criticizes Reinhold. A comparison between Schulze's and Maimon's critiques of the elementary philosophy points to the former's lack of nuance. In a part of the book written in the form of a pseudo-letter addressed by Aenesidemus, the skeptic, to Hermias, a critical thinker, the former suggests the hypothesis that truth is encountered in conscious experience, and that this can be adopted as a hypothesis to resist the attacks of rationalism and empiricism. Yet he thinks that neither the critical philosophy nor the elementary philosophy demonstrates its apodictic truth claims (A, pp. 306–307).

This criticism resembles Maimon's reading of Reinhold. As skeptics, Schulze and Maimon both criticize any appeal to a single foundational principle. Yet Maimon's analysis possesses a philosophical finesse largely absent in Schulze's (p.56) text. The latter's insensitivity to philosophical nuance is apparent in two main differences concerning the problem posed by an initial epistemic principle.

Perhaps because his ultimate target is not Reinhold but Kant, Schulze is less concerned than his fellow skeptic to inquire into the extent to which the spirit of the elementary philosophy is consistent with that of the critical philosophy. As an opponent of the critical philosophy, Schulze needs to counter an important commentator pretending to extend Kant's position beyond Kant. But it does not follow that the claim to complete the critical philosophy need be granted. In fact, Maimon's analysis of the very concept of an initial principle calls into question the internal consistency of Reinhold's endeavor.

Since Schulze does not study the relation between Reinhold and Kant, his treatment of the problem of the supposedly initial, or foundational, principle is not persuasive. Maimon's suggestion that such principles need not be demonstrated is doubly significant. He claims Reinhold's effort to achieve certainty is inimical to the critical philosophy. He further maintains a sophisticated form of skepticism based on a subtle interpretation of the thing in itself largely in accord with the critical philosophy. Kant is obviously skeptical, since he clearly denies knowledge of the thing in itself, or mind-independent reality.

Maimon does not simply reject the critical philosophy, but rather elaborates one of its consequences. Schulze's skepticism is comparatively more simplistic. Its aim is merely to undermine any claim to establish certain principles. In antiquity, Aenesidemus established a series of skeptical tropes questioning the veracity of sense perception. Schulze, who extends this perspective to the level of conceptual principles, explicitly excludes the hypothetical status of such principles as incompatible with cognition. This is clearly different from Maimon's view, and perhaps from Kant's as well.

Schulze's strategy follows his view of skepticism as the constant reestablishment of doubt. He seeks to show that Reinhold fails to ground the principles of the philosophy in the so-called principle of consciousness (*Satz des Bewusstseins*) since he does not demonstrate this principle. This discussion unfolds under the heading of "The Fundamental Teaching of the Elementary Philosophy" ("Fundamentale Lehre der Elementar-Philosophie") in nine sections. Each section examines one or more supposedly central theses. The most important part of the discussion is



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contained in the first two sections concerning respectively the proposition of consciousness (A, pp. 44–58) and “The Underlying Concept of Representation” (*Der ursprüngliche Begriff der Vorstellung*; A, pp. 59–69).

These accounts are at best uneven. Schulze offers three main criticisms of Reinhold’s principle of representation: it is “not a basic proposition” (**p.57**) (A, p. 45); it is not “throughout limited by itself ” (A, p. 48); and it does not express either “a generally valid proposition [or] ... a fact which is not bound to any definite experience or certain reasoning” (A, p. 53). These criticisms, though not without merit, are mainly formulated without consideration of Reinhold’s view, to which, hence, they are not always relevant. The first criticism is based on the Aristotelian assumption that the law of noncontradiction is the absolutely fundamental law of thought. We recall that Kant relies on noncontradiction in analytic judgments. Schulze adopts this strategy to suggest Reinhold cannot demonstrate the primacy of the law of consciousness without circular reasoning (A, p. 47). Since Schulze merely asserts but fails to establish the claim upon which the accusation of circularity rests, the refutation either does not hold, or does not hold in the form in which it is stated. This criticism is also not obviously relevant to Reinhold, who is not concerned with the intrinsic order of principles, which supposedly must be presupposed for rational discourse. He is rather concerned with the conditions of the derivation of cognition from experience.

The other criticism, which concerns the imprecision in Reinhold’s statement of his basic concept, is relevant and important. Schulze develops this point in the second part of his discussion concerning the principle of representation (*Vorstellung*). He begins by clarifying the meanings of the terms “representation,” “subject,” and “object.” Then he remarks that a representation must be considered not insofar as it relates to subject and object, but rather as it can be thought in relation to both subject and object (A, p. 61). This subtle correction of Reinhold grounds the possibility of knowledge of objects through their representation. Claims to know require that the same representation relate to both subjective and objective epistemic poles. This observation was extremely influential in the immediate debate. Fichte acknowledges the importance of Schulze’s reformulation of Reinhold’s concept of representation as a crucial step in the formulation of his own position.

Maimon and Schulze both react to Reinhold’s reformulation of the critical philosophy as a foundationalist system. Yet the differences in their respective approaches could scarcely be greater. I have been unable to find any evidence of Schulze’s reaction to Maimon. However, Maimon was fully aware of the lack of agreement between their views: in a letter to Reinhold, he describes this difference as of “celestial proportions [*himmelweit*].”<sup>68</sup>

#### Notes:

(1.) “Gegen Reinhold bist Du ein Verächter Kants; den dieser behauptet, daß nach hundert Jahren die Reputation von Jesus Christus haben müsse.” *Karl Leonhard Reinhold Korrespondenzausgabe*, vol. 1, 1773–1788, ed. Reinhard Lauth, Eberhard Heller, and Kurt Hiller (Stuttgart: Frommann-Holzboog, 1983), p. 207.

(2.) In a letter from 1791, Schiller wrote that Reinhold had “dem Studium der Kantischen Philosophie mannigfaltigen Schaden gethan.” “Band III,” in *Korrespondenz 1791*, ed. Faustino Fabbianelli, Eberhard Heller, Kurt Hiller, Reinhard Lauth, and Ives Radrizzani, with Christian

Kauferstein, Petra Lohmann, and Claudius Strube, 2011, *Korrespondenzausgabe*, vol. 3 (Stuttgart: Frommann-Holzboog, 1981), p. 116 Anmerkung.

(3.) See Karl Ameriks, introduction to the translation of Karl Leonhard Reinhold, *Letters on the Kantian Philosophy*, trans. James Hebbeler (New York: Cambridge University Press, 2005), p. xi1.

(4.) For this view, see Karl Ameriks, "Reinhold, History, and the Foundations of Philosophy," in *Karl Leonhard Reinhold and the Enlightenment*, ed. George di Giovanni (Dordrecht: Springer, 2010), pp. 113–130.

(5.) For this view, see Paul W. Franks, *All or Nothing: Systematicity, Transcendental Arguments, and Skepticism in German Idealism* (Cambridge: Harvard University Press, 2005).

(6.) See "Descartes à Clerselier, Egmond, juin ou juillet 1646," in René Descartes, *Oeuvres de Descartes*, vol. 4, ed. Paul Adam and Charles Tannery (Paris: Vrin, 1996), pp. 444–445; my translation.

(7.) Immanuel Kant, *Prolegomena to Any Future Metaphysics That Will Be Able to Come Forward as Science: With Selections from the "Critique of Pure Reason,"* trans. and ed. by Gary Hatfield, (New York: Cambridge University Press, 2004), p. 60.

(8.) See Ernst Cassirer, *Das Erkenntnisproblem in der Philosophie der neueren Zeit*, vol. 3 (Berlin: Verlag Bruno Cassirer, 1920), p. 35.

(9.) On this point, see A. von der Stein, "Der Systembegriff in seiner geschichtlichen Entwicklung," in A. Diemer, ed., *System und Klassifikation in Wissenschaft und Dokumentation*, (Meisenheim am Glan: A. Hain, 1968), S. 10ff; see also F. Kambartel, " 'System' und 'Begründung' bei und vor Kant," in *Theorie und Begründung* (Frankfurt am Main: Suhrkamp, 1976), p. 41 ff.

(10.) See Kant's letter to Reinhold, December 28 and 31, 1787, *Correspondence*, trans. and ed. Arnulf Zweig (New York: Cambridge University Press, 1999), pp. 271–273.

(11.) See, for example, Nicolai Hartmann, *Die Philosophie des Deutschen Idealismus* (Berlin: De Gruyter, 1974), pp. 14–15.

(12.) For an account of the evolution of Reinhold's elementary philosophy, see Alfred Klemmt, *Karl Leonhard Reinholds Elementarphilosophie: Eine Studie über den Ursprung des spekulativen deutschen Idealismus* (Hamburg: Meiner, 1958); and Sven Bernecker, "Reinhold's Road to Fichte: The Elementary-Philosophy of 1795/96," in Giovanni, ed., *Karl Leonhard Reinhold and the Enlightenment*, pp. 221–239.

(13.) Richard Kroner, *Von Kant bis Hegel*, 2nd ed. (Tübingen: Mohr, 1961), pp. 315–16

(14.) See K. L. Reinhold, *Versuch einer neuen Theorie des menschlichen Vorstellungsvermögens* (Prag/Jena, 1789), pp. 67–68.

(15.) See Nicolai Hartmann, *Die Philosophie des Deutschen Idealismus* (Berlin: De Gruyter, 1974), pp. 14–15.

(16.) See K. L. Michelet, *Geschichte der letzten Systeme der Philosophie in Deutschland von Kant bis Hegel*, vol. 1 (Berlin, 1837).

(17.) See Johann Eduard Erdmann, *Die Entwicklung der deutschen Speculation seit Kant* (Leipzig: Vogel, 1848), part 1, pp. 422–95; and Kuno Fischer, *Geschichte der neuern Philosophie*, vol. 5, *Fichte und seine Vorgänger* (Heidelberg: Basserman, 1869), pp. 37–99 and pp. 443–46.

(18.) See Cassirer, *Das Erkenntnisproblem III*, pp. 33–58.

(19.) “Introduction: The Facts of Consciousness,” in *Between Kant and Hegel: Texts in the Development of Post-Kantian Idealism*, trans. and annotated by George di Giovanni and H. S. Harris (Albany: State University of New York Press, 1985), p. 3.

(20.) Kant, *Correspondence*, pp. 264–68.

(21.) *Ibid.*, pp. 264–68.

(22.) See *ibid.*, pp. 389–91.

(23.) See *ibid.*, pp. 391–93.

(24.) See *ibid.*, pp. 94–95.

(25.) See Karl Leonard Reinhold, *Letters on the Kantian Philosophy* (New York: Cambridge University Press, 2005), p. ix.

(26.) Letter, October 12, 1787, cited in Karl Vorländer, *Kants Leben* (Leipzig: F. Meiner, 1921), p. 148.

(27.) See Reinhold, *Letters*, p. 16.

(28.) See *ibid.*, p. 17.

(29.) This is surprisingly also not mentioned by James Hebbeler in his detailed introduction to the recent translation.

(30.) See Fourth Letter, Reinhold, *Letters*, p. 117n.

(31.) See Reinhold, *Letters* pp. 129–132.

(32.) K. L. Reinhold, *Beyträge zur Berichtigung bisheriger Missverständnisse der Philosophen*, vol. 1 (Jena: Manke, 1790), p. 267.

(33.) Reinhold, *Beyträge zur Berichtigung*, p. 167.

(34.) For a partial translation, see *The Foundation of Philosophical Knowledge*, trans. George di Giovanni, in *Between Kant and Hegel: Texts in the Development of Post-Kantian Idealism*, trans. and ed. George di Giovanni and H. S. Harris (Albany: SUNY Press, 1985), pp. 52–106.

(35.) For a summary of Reinhold’s protean career, see René Wellek, “Review: Between Kant and Fichte: Karl Leonhard Reinhold,” in *Journal of the History of Ideas* 45, no. 2 (April–June 1984): pp. 323–327.

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(36.) See his "Rezension von Fichtes zur Wissenschaftslehre gehörenden Schriften," in M. Selling, *Studien zur Geschichte der Transcendentalphilosophie* (PhD diss., Uppsala University, 1938), pp. 317ff.

(37.) For an account, see "Fichtes und Reinholds Verhältnis vom Anfange ihrer Bekanntschaft bis zu Reinholds Beitritt zum Standpunkt der Wissenschaftslehre Anfang 1797," in Reinhard Lauth, *Philosophie aus einem Princip* (Bonn: Bouvier, 1974), pp. 137ff.

(38.) See C. G. Bardilis und C. L. Reinholds *Briefwechsel über das Wesen der Philosophie und als Unwesen der Spekulation*, ed. C. L. Reinhold (Munich: J. Lentner, 1804); see also Reinhold's *Beyträge zur leichteren Übersicht des Zustandes der Philosophie bei dem Anfange des 19. Jahrhunderts* (Hamburg: R. Perthes, 1801-1803).

(39.) See K. L. Reinhold, *Sendschreiben an J. C. Lavater und J. G. Fichte über den Glauben an Gott* (Hamburg: Friedrich Perthes, 1799).

(40.) See Reinhold, ed., *C. G. Bardilis und C. L. Reinholds Briefwechsel*.

(41.) For Fichte's review of Bardili's *Grundriss der Logik*, see *Fichte-Werke*, vol. 2 (Berlin: Walter de Gruyter, 1911), pp. 490-504. For Reinhold's response, see Reinhold, *Beyträge zur Berichtigung*, vol. 1, pp. 113-134. For Fichte's further reply, see *Fichte-Werke*, vol. 2, pp. 504-534.

(42.) See Fichte's review of Bardili's *Grundriss* in *Erlanger Literatur-Zeitung*, October 30-31, 1800, in *Fichte-Werke*, vol. 2, p. 491.

(43.) "First Letter" in Reinhold, *Letters*, p. 15.

(44.) Karl Leonhard Reinhold, *Über das Fundament des philosophischen Wissens* (Hamburg: Meiner Verlag, 1978), p. xiii.

(45.) *Ibid.*, p. xiv.

(46.) *Ibid.*, p. 69.

(47.) See *ibid.*, pp. 77-78 and 71-72.

(48.) See Bernhard Mensen, "Reinhold zur Frage des ersten Grundsatzes," in Lauth, *Philosophie*, pp. 108-128.

(49.) See Reinhold, *Fundament*, pp. 27-49.

(50.) See Reinhold, *Versuch*, pp. 66, 120.

(51.) Reinhold, *Beyträge zur Berichtigung*, vol. 1, p. 367.

(52.) For comparison of Reinhold's and Kant's views of philosophy as system, see Wilhelm Teichner, *Rekonstruktion oder Reproduktion des Grundes: Die Begründung der Philosophie als Wissenschaft durch Kant and Reinhold* (Bonn: Bouvier, 1976).

(53.) See Jürgen Habermas, *Rekonstruktion des historischen Materialismus* (Frankfurt am Main: Suhrkamp, 1976).

(54.) See Kant, *Correspondence*, pp. 311–16.

(55.) See Fichte's letter to Karl Leonhard Reinhold, end of March–April 1795, in Johann Gottlieb Fichte, *Fichte Briefe* (Leipzig: Reclam, 1986), p. 142

(56.) See Salomon Maimon, *Essay on Transcendental Philosophy* (New York: Continuum, 2010), pp. 8–9.

(57.) In a letter, Maimon notes that the thing in itself is “nothing other than the complete cognition of appearances. Metaphysics is thus not the study of something apart from experience, but rather merely of the limits (Ideas) of experience itself.” Salomon Maimon, *Versuch über die Transzendentalphilosophie*, ed. Florian Ehrensperger (Hamburg: Felix Meiner Verlag, 2004), 250–251.

(58.) *Ibid.*, p. 251.

(59.) See *Philosophischer Briefwechsel nebst einem demselben vorangeschickten Manifest*, in Salomon Maimon, *Gesammelte Werke*, vol. 4, ed. Valerio Verra (Hildesheim: Georg Olms, 1970), pp. 204–205.

(60.) Cited in Eckart Förster, *The Twenty-Five Years of Philosophy: A Systematic Reconstruction*, trans. Brady Bowman, (Cambridge, MA: Harvard University Press, 2012), p. 174n19.

(61.) See Maimon, *Philosophischer Briefwechsel*, p. 209.

(62.) See *ibid.*

(63.) See Kant, *Correspondence*, p. 441.

(64.) Maimon, *Attempt at Transcendental Philosophy*, p. xxii.

(65.) See Kant, *Correspondence*, pp. 387–89.

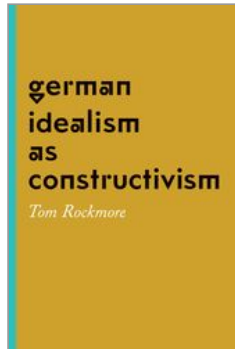
(66.) See *ibid.*, pp. 440–44.

(67.) See Maimon, *Philosophischer Briefwechsel*, p. 224.

(68.) See Maimon's letter to Reinhold, May 24, 1794, Berlin, in Maimon's *Gesammelte Schriften*, p. 447.

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### German Idealism as Constructivism

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Print publication date: 2016

Print ISBN-13: 9780226349909

Published to Chicago Scholarship Online: January 2017

DOI: 10.7208/chicago/9780226350073.001.0001

### Fichte's Transcendental Philosophy, the Subject, and Circularity

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DOI:10.7208/chicago/9780226350073.003.0004

#### Abstract and Keywords

Chapter 3, "Fichte's transcendental philosophy, the subject and circularity," focuses on Fichte's rethinking of the conception of the subject, and, as a result, ontology and cognition from a fully subject-centered perspective. The result is to remove the ambiguity in the critical philosophy about the status of the noumenon, or mind-independent real, which Kant inconsistently describes as uncognizable but as also indispensable for cognition. The chapter also treats the Fichtean link to the two-aspects thesis in his Deduction of representation. I show that Fichte states this representational approach to knowledge while denying its validity in a constructivist approach to cognition.

**Keywords:** Immanuel Kant, Johann Gottlieb Fichte, Karl Leonhard Reinhold, representation, noumenon, critical philosophy

The transition from Kant (like Leibniz, one of the first German idealists) to Fichte (the first post-Kantian German idealist) is influenced by idealists as well as non-idealists, and among the latter Reinhold, Maimon, and Schulze. Kantian constructivism inconsistently explains cognition on the basis of the supposed causal action of the mind-independent, uncognizable real on the transcendental subject. This is inconsistent since it assumes as an explanatory factor reality, which cannot be known and of which no account can be given. The critical philosophy relies on both the transcendental subject and the noumenal object to explain the phenomenal object of knowledge from a constructivist point of view. In formulating his own form of constructivism, Fichte improves on Kant's cognitive approach, which he renders consistent in taking the subject as the sole explanatory factor—at the enormous price of being unable to account for the objectivity of cognition.

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Kant is paradoxically both the main progenitor of post-Kantian German idealism—which arises through a series of reactions to the critical philosophy—as well as in a sense its heir through the qualified return to the critical philosophy in the rise of German neo-Kantianism after Hegel's death. Since Kant did not pass from the scene until 1804, Fichte, Schelling, and Hegel, the main post-Kantian German idealists, were already in the process of reacting to the critical philosophy before he died. Fichte's first important publication, the *Critique of All Revelation* (1792), and the *Foundations of the Science of Knowledge* (1794)—arguably his most important treatise—both date from the first half of the 1790s. Schelling, though younger, began to publish even earlier as a teenager. His *System of Transcendental Idealism* (1800), which many **(p.59)** believe is his single most important treatise, emerged at the turning of the century. Hegel's initial philosophical text, the so-called *Differenzschrift* (1801), appeared immediately afterward.

The return to Kant occurred at a time when many observers thought post-Kantian German idealism had ended. After Hegel passed from the scene, post-Kantian German idealism rapidly came to an end in the qualified return to Kant brought about by Liebmann and others, and the associated rise of German neo-Kantianism. When German “idealism” ends depends on what this term means and whom one has in mind. Fichte died in 1814 and Hegel in 1831. Though Schelling did not die until 1854, it is unclear if, say, after the first decade of the nineteenth century, he should still be counted among the German idealists. If one thinks Schelling is the last major figure of German idealism, then it continues and reaches its peak after Hegel's death. If one thinks it is not Schelling but Hegel, then, as the young Hegelians thought, German idealism ends with his passing. If on the contrary one identifies German idealism with cognitive constructivism, then it continues as a less focused approach to cognition widely diffuse in the contemporary debate.

According to Hegel, modern philosophy begins in independently existing thought freed from authority, or the so-called Protestant principle. Independent thought presupposes various forms of the modern conception of the subject due to Montaigne, Descartes, and others. Since Descartes is still strongly dependent on earlier thought, there is further development, but no clear break from medieval philosophy to the modern tradition. Though the Cartesian view of subjectivity strongly depends on earlier views, the focus changes in modern philosophy. The basically moral conception of the subject, which emerges in medieval thought in order to account for individual responsibility, changes radically in the modern effort to understand knowledge from the perspective of the subject.

An epistemic approach to the subject comes into the modern debate through Montaigne, Descartes, and others. In Descartes's wake, the problem of the subject becomes key to modern philosophy, which is strongly influenced by the French thinker. This does not mean that there are only Cartesians among modern thinkers. Certainly, there are at least as many anti-Cartesians, who believe we need to distance ourselves from his insights, vocabulary, and concerns. Yet in different ways, modern cognitive theories with few exceptions follow the Cartesian insight that the road to objectivity necessarily passes through subjectivity. The difficulty, which affects all those who write after Descartes, lies in understanding subjectivity in a way that allows for objective cognition.

**(p.60)** A philosophical inversion occurs in the critical philosophy. Through the Copernican turn, Kant suggests that we should not understand the cognitive subject as depending on the cognitive object, but rather understand the cognitive object as depending on the cognitive subject. A second philosophical inversion occurs in the transition from Kant to Fichte in the

latter's rethinking of the subject. This second philosophical inversion consists in two main points. First, what for Kant is the final piece in his transcendental deduction is for Fichte the initial element in his transcendental philosophy. Second, and as a result, Fichte rethinks the subject not as an epistemic principle but as a finite human being. In the process, the Kantian tension between the conditions of knowledge and philosophical anthropology—a tension present everywhere in his critical philosophy—is resolved in favor of Fichte's clearly anthropological approach to cognition.

Kant, who anticipates what Husserl later calls psychologism, introduces a tacit distinction between the finite human and philosophical subjects. In the *Critique of Pure Reason*, Kant famously raises three questions about what one can know, should do, or may hope. In the *Jäsche Logic*, he later adds a fourth question: What is man? In a deep sense, Kant strives for, constantly approaches, but never finally reaches the real human subject, which is always out of reach. His three *Critiques* analyze three forms of human experience (theoretical, practical, and aesthetic) against the background of three forms of activity without ever being able to attain the unified human subject they presuppose. For Kant, the subject is the final element in his theory of knowledge, which it rather begins for Fichte. Thus Kant only deduces the transcendental philosophical subject as the last important element—the copingstone, as it were—of his analysis of knowledge. Fichte, who inverts the Kantian approach, begins from his conception of the subject. Unlike Kant, who formulates his account of the subject in transcendental epistemic terms, Fichte reformulates it from an anthropological perspective excluded by the critical philosophy. An anthropological perspective approach to knowledge is clearly rejected by Kant, for instance, in repeated objections to Locke's so-called physiology.

The relation of Fichte to Kant—hence the relation of post-Kantian German idealism to Kantian idealism—is masked, even distorted by Fichte's claims. Though an original thinker, Wolff was, and was also understood as, Leibniz's disciple. Kant claims that Wolff was the greatest of the dogmatists. Yet after Kant, all the post-Kantian German idealists at least initially enter the philosophical debate in presenting themselves as disciples. Thus Fichte claims to be an authentic Kantian. Schelling claims to be an authentic Fichtean. And Hegel suggests, but never clearly claims, that he is an authentic Schellingian.



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### **(p.61)** Toward Interpreting Fichte's Position

Fichte is clearly a difficult philosopher to understand. This difficulty is due to a number of factors, including the availability of texts, his complex style, and the lack of agreement on even a general description of idealism, let alone German idealism. Thus there is confusion in the debate about whether he is an idealist, not an idealist (according to Philonenko), a romantic (according to Franks and Beiser), or perhaps something else.

These general factors affect the interpretation of all the main German idealists, including Kant, Fichte, Schelling, and Hegel, and, if he is an idealist, Marx as well. The grasp of Fichte's position is further masked by three specific factors closely linked to his position: first, there is his consistent but misleading claim to be a "faithful" Kantian; second, there is the lack of agreement about even the basic thrust of Kant's position; and third, there is the rapid evolution of Fichte's position.

Fichte's claim to be a faithful Kantian provides an important hint about what he intends to do in his own writings. This claim is often read literally, which has two consequences. On the one hand, such an approach masks Fichte's considerable accomplishment, which should not be diminished either because he claims to be a disciple of another thinker, or because he is working in a field opened up by Kant. On the other hand, the claim to be a faithful Kantian can easily be refuted in pointing to basic differences between the views of Kant and Fichte. Yet it is probably better understood as pointing to Kant's important influence on Fichte's own effort to think through Kantian themes in employing closely Kantian language and Kantian distinctions in radically rethinking one way of understanding the critical philosophy.

The second factor is the deep enigma of how to understand the critical philosophy, which in turn impacts our understanding of Fichte's transcendental philosophy. Since Fichte consciously links his position to Kant's, an understanding of the critical philosophy is a precondition for understanding Fichte's transcendental philosophy. It is an understatement to say that, despite the enormous size of the Kant debate, we seem to be no closer to a consensus about it than at the time of post-Kantian German idealism. It is possible (in fact, probable) that Fichte, Schelling, and Hegel, who were near contemporaries of Kant (especially Fichte and Hegel), were better readers of the critical philosophy than our contemporaries.

A final factor is the rapid evolution of Fichte's position, both during his Jena period and after it. The nature of this evolution is masked by Fichte's obsessive habit of employing the same term "*Wissenschaftslehre*" in the title **(p.62)** of the sixteen or so versions of the basic position. This term, which refers to Fichte's laudable pedagogical concern, suggests the basic continuity of the position while looking away from important differences. As with any important thinker, there is considerable continuity in Fichte's position, but also important changes, in fact changes so important that a failure to take them into account undermines our grasp of Fichte's position. Fichte, who follows Kant in this respect, is concerned with cognition. Further like Kant, Fichte's normative conception of cognition turns on his original conception of the subject. His view of the subject, hence of cognition, changes as a result of the notorious *Atheismusstreit*, leading him to resign his position and to leave Jena. Fichte, who thinks the kind of philosophy one has depends on who one is, was forced by circumstances to adjust his theories in the face of immediate difficulties following from this controversy. He did this in later making the subject depend on God, which immediately undermined what is arguably the central insight of the Jena *Wissenschaftslehre*, or the claim that the subject depends only on itself. In discussing Fichte's

position, I will focus mainly on his early Jena period since this part of his oeuvre was more influential than his later writings and also since I believe his view was significantly weakened through the notorious *Atheismusstreit*.

### Fichte on the Spirit and the Letter of the Critical Philosophy

Fichte is often not understood since his claim to be a Kantian is interpreted as requiring faithful allegiance if not to the letter, at least to the spirit of the position. Yet since there are deep tensions between the spirit and the letter of the critical philosophy, Kant's epigones, including Fichte, are forced to choose. Fichte wisely eschews mere fidelity to the letter of the critical philosophy in striving to be faithful to its spirit. This accounts for his violent rejection of certain key aspects of Kant's position (for instance, the thing in itself, or reality), while constantly, perhaps prudently, but certainly inaccurately (if fidelity to the letter is the criterion) proclaiming his Kantian orthodoxy.

Fichte's position can be understood as an effort not only to call attention to Kant's position by restating it in different language, but also to interpret, to criticize, and to carry the critical philosophy beyond the point at which Kant left it, which is clearly controversial. In interpreting Kant's position, Fichte hints at the nature of his own position. Fichte's so-called orthodox Kantianism is less an effort to call attention to the critical philosophy—though it is that **(p.63)** as well—than a highly original effort to provide a further formulation of the critical philosophy that will solve deep difficulties by bringing the Copernican revolution to an end.

The justification for such an approach is provided in the critical philosophy. As already noted, Kant indicates both that nothing in the theory can be revised as well as that an original thinker often works with an idea that person knows how to use but often does not fully understand. Taken together, these indications suggest the position must still be perfected (as Reinhold thinks), or that it is already fully developed (as Maimon believes). This paradoxical view suggests a further point. Since theories are formulated to respond to perceived, still unresolved problems, someone who reacts to the critical philosophy should be able to carry it further than Kant, who claims to end philosophy.

Fichte suggests that he merely restates the critical philosophy in different terms since it has not been understood. In fact he transforms Kant's position in rejecting doctrines inconsistent with its Copernican thrust. Fichte describes his aim as presenting the critical philosophy in independence of its author. In the mid-1790s in a philosophical context largely dominated by Kant, Fichte writes that his own "aim ... is the total eradication and complete reversal of current modes of thought on these topics, so that ... the object shall be posited and determined by the cognitive faculty, and not the cognitive faculty by the object" (*SK*, p. 4). This statement can be read as a clear claim to identify Kant's position through the so-called Copernican reversal. It specifies the limits of Fichte's own position as an independent restatement of the critical philosophy, a restatement faithful at least to its spirit.

### On Fichte's Reading of and Reaction to the Critical Philosophy

Fichte—who poses as an absolutely seamless Kantian (and, by implication, as the only one to comprehend Kant)—describes his aim as presenting the critical philosophy, whose central insight is the Copernican revolution, in independence of its author. In the early 1790s at a moment when the critical philosophy was the central theme, Fichte described his "aim [as] the total eradication and complete reversal of current modes of thought on these topics, so that ...

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the object shall be posited and determined by the cognitive faculty, and not the cognitive faculty by the object" (*SK*, p. 4).

Fichte is correct about Kant's central insight, the so-called Copernican turn, as well in attributing the view that the object is merely posited to Kant. **(p.64)** The latter clearly says that the thing in itself or noumenon (his terms for mind-independent reality) can be thought, but not given in experience. Since all knowledge begins in experience, the uncognizable Kantian cognitive object is a mere hypothesis. Fichte's term "posit" (*setzen*) can perhaps best be translated as "to hypothesize." His use of this term suggests Kant's analysis of the general possibility of knowledge rests on a number of assumptions. These include the crucial point that there is a mind-independent external world, which we cannot know, but which, together with the mind of the subject, is a main cause of which the phenomenal object or appearance is an effect. In stressing the mind's determination of the cognitive object, Fichte insists perhaps even more than Kant on the practical role of the subject.

For Fichte, theory—which is not a priori in the Kantian sense—arises in order to account for the practical situation. This basic difference leads to many other differences, which can perhaps be grouped around the relation of theory and practice. Though Fichte suggests his position is an independent statement of Kant's, his focus is very different from Kant's. Kant claims in theory to have a priori knowledge about what must occur in practice, whereas Fichte claims to explain through theory what is given in practice.

This theme, which Marxists often regard as having been introduced by Marx, is central in different ways to Kant and Fichte, and no less so to Hegel. In different ways, this theme goes back in the Western tradition at least to Aristotle.<sup>1</sup> We recall the latter's insistence that ethics takes place within a political context. Kant's austere theoretical approach limits his grasp of practice to what can be subsumed into theory. His inability to come to grips with practice, otherwise than in transforming it into mere theory, is visible on several levels. These include his conception of morality as necessarily following a self-prescribed but inflexible set of moral rules, which is the basis of his deontological approach to morality; his view of theory as containing practice; his preference for obedience over disobedience of any kind, hence his inability to justify revolutionary activity (though he admired the French Revolution, he could not find a way to participate in it within the limits of his position), and so on.

Kant's entire cognitive perspective is focused on the seamless justification of an a priori, hence theoretical approach. Fichte's is no less focused on a practical approach—more precisely, on a theoretical analysis of problems arising in practice. Kantian deontological morality is concerned with determining and in fact doing what is right, what one should do according to the inflexible laws of practical reason without regard to possible consequences **(p.65)** or usefulness. Kant invokes practical reason that, since it alone chooses the maxim of its act without respect to tradition or other forms of heteronomy, is potentially revolutionary in obeying no law other than its own. Yet he deprives practical reason of the possibility of coming to grips with real-life situations, which can rarely if ever simply be reduced to applying an inflexible set of rules. Kant is concerned with noumenal freedom following from his conception of reality, or the thing in itself—freedom to choose to do what is right according to the moral law and neglecting the problem of freedom in the social context. Fichte, who simply abandons the thing in itself, is interested in real human freedom in a social context as following from the actions of finite men and women. Early in his career, Fichte took social stands on the importance of the French Revolution and freedom of expression, then later on a variety of concrete themes, including

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German nationalism. There is truth in the view that Fichte's entire position turns on the problem of human freedom<sup>2</sup> as well as on an authoritarian form of socialism closely related to Marx's view.<sup>3</sup>

The crucial difference between Fichte and Kant concerning their very different approaches to the problem of theory and practice can be sharpened with respect to the subject. Kant inconsistently proposes views of the subject of theoretical and practical knowledge (based on types of activity) and aesthetics (based on what Kant calls taste). The accounts of the cognitive subject are admittedly chosen according to the requirements of an account of pure reason, and practical reason. The Kantian moral subject is required to act autonomously, hence in a way that, as Kant realizes, no human being has ever acted or could possibly ever act. On the contrary, the aesthetic subject, or finite human being, supposedly reacts to art objects in a manner potentially acceptable to everyone; that is, to everyone who has taste in the Kantian sense.

The difficulty comes to a head in the moral writings, including the second *Critique* and the *Groundwork*, where Kant can be read as "reducing" morality, or moral practice, to moral theory. His aim seems to be to ground theory in practice, a goal he addresses in a number of places, including the two introductions, published and unpublished by him, to the third *Critique*. Yet his argument tends in the opposite direction in suppressing the autonomy of practice that is taken up within theory. It is arguable that practice is always wider, hence richer than any theory about it, which, no matter how good it is and how wide its scope, is never entirely adequate. Kant makes the opposite argument. For practice in general, Kant believes there is no situation that cannot unambiguously be addressed solely on the theoretical plane. That is perhaps the central theme of the neglected, but important article on **(p.66)** the relation of theory and practice that does not innovate but rather restates in broader form the argument earlier developed for moral phenomena, which is a type of practice.<sup>4</sup>

Fichte goes further down the same road in grounding theory in practice. Kant begins with theory before turning to practice; for instance, the concept of practical reason or morality he claims to deduce. Fichte, on the contrary, starts with concrete problems that arise on the practical plane. Foundationalist theories are invariably "linear" in reasoning on the basis of a supposedly fixed point (for Descartes, the cogito). Fichte opposes cognitive foundationalism on theoretical grounds—the inability to demonstrate a first principle—in basing his theory on practical considerations. In reacting to contemporary debate, he invokes circularity against Reinhold's foundational linearity as the basic form of philosophical reason. As an anti-foundationalist, Fichte denies philosophy can ground itself in some initial starting point that like the Cartesian cogito is known to be true and from which the remainder of the theory follows. Fichte thinks that philosophy, as Hegel later suggests, is neither founded nor grounded. It rather depends on such pre-philosophical factors as who one is (see *SK*, §5, pp. 12–16). Kant, who begins on the a priori plane, insists that pure theory is always relevant to practice as such. He further implies that practice is wholly contained within theory. This suggests that in the critical philosophy there are—in fact, must be—wholly sufficient theoretical answers for any and all practical concerns. Fichte, on the contrary, contends that philosophy arises through the theoretical effort to respond to practical concerns before returning to the practical plane. In other words, for Fichte, philosophy is intrinsically circular in that practice calls forth theory, which in turn returns to practice.

### Fichte's Transcendental View of the Subject

In the critical philosophy, the cognitive subject is depicted as both passive and active: passive in receiving sensation and active in constructing a perceptual object. In Kant's wake, Fichte simply drops the thing in itself in featuring an account of experience in which the cognitive subject is understood as solely active. In comparison to Kant, Fichte's even more important innovation concerns the subject. He proposes, as Hegel points out, to explain experience through a new view of the subject as practically finite, constrained in its action by its surroundings, but theoretically infinite, or wholly unconstrained, hence forever suspended, as it were, between what is and what ought to be.

Kant's view of the interaction of the transcendental subject and reality is a third-person causal account. In reacting against the critical philosophy, Fichte **(p.67)** reformulates the Kantian view as a first-person account of the interaction of subject and object in a statement of the fundamental principles which begins the *Science of Knowledge*.

In the transcendental deduction, Kant depicts the subject as an abstract series of functions necessary to account for the possibility of experience and knowledge. According to the modern causal approach to perception, objects cause ideas in the mind that in turn supposedly justify a reverse, anti-Platonic cognitive inference from the idea to the mind-independent object. Kant departs from this model in suggesting external reality affects the subject, which in turn constructs empirical objects of perception and knowledge. He sketches his variation on this theme in his functional account of subjectivity. Fichte's turn away from Kant's functional account of subjectivity and toward a new concept of finite human being as the philosophical subject leads to novel accounts of ontology from a subjective point of view—philosophy as systematic but “ungrounded”—and to a view of cognitive claims as intrinsically circular.

In “The Aenesidemus Review,” the terminus a quo of his position, Fichte prepares the ground for a new theory of ontology in claiming all philosophy must be traced back to a single principle: the subject. He notes that what is most certain is the self, or “I am,” and then adds that “all that is not-I is for the I only.”<sup>5</sup> Fichte's suggestion that what is not the subject is only for it is a distant reformulation of the traditional Parmenidean conception of mind-independent reality as mind-dependent. The result is a new understanding of objectivity from the perspective of subjectivity.

In the critical philosophy, objectivity takes two incompatible forms: as the mind-independent external object, or thing in itself, as well as the mind-dependent cognitive object of experience and knowledge. In Fichte's view, objectivity takes the single form of what is experienced in practice but understood theoretically as the result of the subject's activity.

According to Fichte, the philosophical task consists in explaining experience, which he defines as “representations [Vorstellungen] accompanied by a feeling of necessity” (SK, p. 6). An explanation of experience requires an account of its ground in an object situated outside the possibility of experience (see SK, pp. 8–9). Kant's regressive analysis, which begins from the cognitive object, runs from conditioned to condition thereof and ends in the subject (or transcendental unity of apperception)—as repeatedly noted, the highest point of transcendental philosophy. Fichte's rival explanation of experience begins not from the object but from the subject—more precisely, from the assumption that “[a] finite rational being has nothing beyond experience” (SK, p. 8).

**(p.68)** Since Fichte thinks the ground of all experience lies outside experience, he, unlike Reinhold, refuses epistemic foundationalism as a cognitive strategy.<sup>6</sup> He begins his account of “The Fundamental Principles of the Entire Science of Knowledge” in describing his task as

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seeking a first principle, which, since it is first in a series of principles, can be neither proven nor defined. "Our task is to *discover* the primordial, absolutely unconditioned first principle of all human knowledge. This can be neither *proved* nor *defined*, if it is to be an absolutely primary principle" (SK, p. 93). This principle cannot be proven, since any such proof would necessarily rest on a prior principle and there is none. It also cannot be defined, since definition presupposes limitation, and an absolutely first principle is by definition unlimited.

The term "ground," which for Fichte does not refer to epistemic foundationalism, can be interpreted in two ways: as the cognitive object, which, in a causal framework, is the cause or source of experience; or again, as the subject, which experiences. For Fichte, a finite rational being, or human individual, cannot cognize anything beyond the limits of experience. We cannot, for instance, aim to know what lies beyond these limits in the form of an object (see SK, pp. 8–9). As for Kant, so for Fichte: one simply cannot know anything about reality, which lies outside experience. In this simple claim, Fichte removes the Kantian thing in itself as even a possible object of investigation.

Fichte's turn away from the Kantian thing in itself leads to three consequences for his view of cognition. First, following Kant, he gives up metaphysical realism for empirical realism. It has already been noted that metaphysical realism, which goes back at least to Parmenides, runs throughout the Western tradition and remains popular in the debate. Sophisticated thinkers continue to believe that to know, we must aim toward or even reliably grasp the mind-independent world as it is. Fichte simply rules this out as belonging to the philosophical task. Kant did so as well. Second, despite Fichte's retention of Kantian terminology, and despite his attention to "The Deduction of Representation," he abandons representation in any form, and hence gives up any form of representationalism.<sup>7</sup> For Kant, "representation" and "appearance" are synonymous terms; yet all appearances are phenomena, but only some phenomena are appearances. A phenomenon is an appearance if and only if there is something that appears. If one gives up the thing in itself, then one can no longer refer to reality as appearing, since in this case experience consists of phenomena only. In other words, in the absence of reality understood within a causal framework, there are no appearances, hence no representations. Third, in ruling out a mind-independent cognitive object as an explanatory **(p.69)** principle, Fichte's only remaining recourse, on pain of falling into skepticism, is to appeal to the subject, or in his terminology, the self (*das Ich*).

The result, as Fichte quickly points out, is a simplified approach to cognition. In Kant's familiar statement of the problem in the Herz letter, the relation of the representation to the object is triadic, existing between the subject, the thing itself, and the empirical object given in experience and knowledge (see CPR, B xxvii, p. 115). But for Fichte, as a result of his turn away from the thing in itself, the relationship becomes dyadic.

Fichte's rival deduction of representation is justified by his remark that Kant fails to prove that representations possess objective validity, and hence fails to demonstrate his theory. Fichte's alternative deduction presupposes inter alia three points. First, there is nothing higher than the subject or self, which functions as his ultimate explanatory concept (SK, p. 224). Second, in philosophy we must start from the subject that cannot be deduced from something else, hence simply cannot be deduced (SK, p. 262). Fichte, who takes the human subject as a given, in this way registers his disagreement with the Kantian effort in the context of "The Transcendental Deduction" to deduce the transcendental subject. Finally, in Fichte's theory, deduction takes the form of a direct, genetic demonstration focused on the self (SK, pp. 239, 269). In short, in

abandoning the conception of the thing in itself, or the mind-independent external world as a presupposition, he gives up the Kantian aim of analyzing the relationship of the contents of mind to the world in favor of a so-called “deduction” of knowledge solely from the point of view of the subject.

Fichte's deduction—which, like Kant's, is stated in logical form<sup>8</sup>—is extremely complex. We need not describe it here in detail. Suffice it to say that, starting from the hypothesis that the self, or subject, is active, he insists on two points: only the subject is left when all objects have been eliminated by the power of abstraction, and the object or not-self is that from which abstraction can be made. Either can be considered as determined by the other, and conversely. The deduction concludes with the claim that the subject is finite (or determined), or on the contrary, infinite (hence determining), and that in both cases it is reciprocally related merely to itself. According to Fichte, theoretical philosophy can go no further. In summarizing his deduction, unlike Kant, Fichte concludes subject and object mutually determine each other.

So far I have stated only enough of Fichte's position to provide a context for his turn to a post-Kantian form of constructivism. Fichte, as noted, begins the *Science of Knowledge* (*Grundlage des gesamten Wissenschaftslehre*, 1794), (p.70) the first and historically most influential version of his position, through an analysis of the so-called “Fundamental Principles of the Entire Science of Knowledge.” His account of an identity in difference is an obviously revised version of Kant's transcendental cognitive subject. In this first part of the *Wissenschaftslehre*, entitled “Fundamental Principles of the Entire Science of Knowledge,” Fichte distinguishes three principles: the first, absolutely unconditioned principle, which postulates that the subject is solely active and never passive; the second principle, conditioned as to content, which is his version of the Kantian reception of sensation through the sensory manifold; and the third principle, conditioned as to form, which is Fichte's restatement of the Kantian analysis of the categorial synthesis of the sensory contents as a cognizable object.

The central thrust of the Fichtean exposition seems to be to identify the subject and object as well as their interrelation. According to Fichte, their interrelation is explained through the fact that the subject's consciousness (of the cognitive object) as well as its self-consciousness are both explicable through the supposition of its activity. Fichte, as noted, defines his task as discovering an absolutely unconditioned first principle of human knowledge. This principle expresses the act, which is not given in empirical consciousness, but rather underlies and makes it possible. Fichte's analysis is perhaps unduly complex, and we need not follow it in detail here, since a reconstruction of the main points will suffice.

Fichte begins from a logical proposition, which he takes as true and then later deduces through an obviously circular argument. According to Fichte, logical identity ( $A = A$ ) is absolutely certain. He understands this not as an existential claim but rather as identifying a necessary connection. He regards the statement “I am I” as absolutely valid, since in any explanation of the basis of empirical consciousness the self (*das Ich*)—again, his name for the subject—is presupposed. Therefore, what is posited is the activity of the human mind, which is supposedly both the agent and the product of action, or again its origin and its result since, as Fichte asserts, “action and deed are one and the same” (SK, p. 97). In other words, “the ‘I am,’ ” which for Descartes is an existential claim, for Fichte “expresses an Act” (ibid.). Fichte's self is an absolute subject, which posits that itself and the self, from this perspective, exist only as self-

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consciousness. It follows that  $A = A$  amounts to the claim that the self posits itself absolutely, since this applies to reality.

Fichte situates his view of the self as the source of all reality with respect to the ongoing debate. He thinks his view has affinities with the Cartesian cogito (**p.71**) and Reinhold's principle of representation. He further thinks his view was adopted earlier in Kant's transcendental deduction. Since the object is the result of, hence identical with, the subject's activity, the object—any object—is no more nor less than the subject in external form. Fichte continues his analysis in an account of the second principle, which, like its predecessor, cannot be proven, and also cannot be derived from the first principle. The overall account serves to identify the cognitive object from the perspective of the subject, hence not as it supposedly is, in beginning, as for the first principle, with a fact of empirical consciousness.

The analysis of the second principle follows that of the first principle. According to Fichte, though it cannot be proven, everyone will accept the proposition that  $\sim A \neq A$ . It follows that what Fichte refers to as the absolute and unconditional opposition, parenthetically through a fact given in consciousness, must simply be posited. Fichte further observes that what he calls counterpositing is possible only on the basis of positing, or the identity of the self. This point establishes the priority of the subject over the object, which is possible only through the opposition to, or rather the negation of, the subject. Yet the subject and object, or the self and what opposes it are not only different but also unified, since opposition presupposes the unity of consciousness. In other words, ontological difference rests on cognitive unity. From the perspective of the subject, the not-self, or object, is merely what is opposed to the self, or subject. In sum, the proposition "I am" is equivalent to  $A = A$ , and  $\sim A \neq A$ , which is the principle of opposition, which presupposes negation.

Fichte so far has sketched the basis of a novel form of subject-object ontology from the subject's angle of vision. The first principle, in following Kant's transcendental unity of apperception, asserts the centrality of subjectivity. The second principle describes sensation, or formless content, through the subject. In his account of the third principle, conditioned as to form, Fichte restates Kant's Copernican view that we know only what we construct through an account of the interaction between the other two principles.

Since Fichte's account is again unnecessarily complex, it will suffice to mention only some main points. His central insight, which he restates in many different forms in this passage in stressing his resolutely first-person perspective, is that this interaction must be understood from the perspective of a subject that is theoretically unlimited but practically limited by its surroundings.

The analysis is divided into three parts (A, B, C). In part A, Fichte suggests that the subject and object are opposed. In part B, he describes the task at hand as discovering, on the basis of an act of the mind (Y), the relation (**p.72**) between subject and object (X) that preserves what he calls the identity of consciousness. The obvious answer is that subject and object limit each other by virtue of what Fichte calls their divisibility. This is an early form of what later becomes a theory of dialectical interaction between human individuals in a social context. In part C, Fichte examines his proposed solution. According to Fichte, consciousness contains the whole of reality; that is, insofar as reality is not attributed to the object, subject and object are posited within the subject. In other words, the context or surroundings are known through the interaction with the subject on the level of consciousness and from which they are inseparable. Fichte suggests that it is possible to bring together subject and object in an account of knowledge only if we take into account synthesis, what he calls counterpositing, and the so-



called act of combination. In that case, subject and object can be understood as interacting from the angle of vision of the subject. In other words, he appears to be trying to grasp the cognitive subject as simultaneously limited and unlimited by its surroundings, and on that basis to understand knowledge as arising in the interaction between the subject and object, leading to consciousness.

Since the third principle concerns synthesis, Fichte regards this account as answering Kant's question about the possibility of synthetic a priori judgments. According to Fichte, all syntheses are rooted in the interrelation between subject and object. Further according to Fichte, the critical philosophy turns on the view of the absolute self as "wholly unconditioned and incapable of determination by any higher thing" (SK, p. 117). Since a philosophy that opposes anything to the subject is dogmatic, or not critical, Fichte sharply rejects the Kantian conception of reality, or the thing in itself, as inconsistent with the critical philosophy and akin to Spinozism, which, in his account, grounds consciousness in a substance. As a further consequence of rejecting the thing in itself, he also rejects Kant's effort to combine both subjective and objective sources in a single cognitive approach. In short, Fichte is suggesting that Kant inconsistently relies on a mind-independent noumenon, which is incompatible with the critical philosophy. This suggests that Kant is finally a dogmatist and that Fichte's revision is the initial version consistent with Kant's position. On Fichte's reading of the critical philosophy, the cognitive object—hence experience—must be explained solely from the perspective of the subject. According to Fichte, for whom the only two possible approaches are criticism and dogmatism, Kant inconsistently seeks to straddle this unbridgeable divide. For Fichte, who follows a strict reading of the critical philosophy, it is not possible to go beyond the subject.

### **(p.73) Fichte's Deduction of Representation**

It has already been noted that Kant's Copernican turn inverts the subject/object relation so that the object depends on the subject. In his new ontology, Fichte restates this Kantian cognitive insight on the epistemic plane in making the ontological object depend on the ontological subject. Though Fichte's position is later restated in many different ways—there are some sixteen versions of the *Wissenschaftslehre*—his novel view of the ontological relation of subject and object remains constant in later writings. Two basic points run throughout his writings. In different versions of his position, Fichte continues to understand the subject as act or active, and as theoretically unlimited but practically self-limiting. From this perspective, Fichte expounds a theory of human action in theory and in practice. In practice, where the subject's range of action is limited, practical issues arise, which are resolved in theory, and in which the subject is understood to freely act. This theory rests on a presupposed identity in difference between the subject, which acts to limit itself, and the object, which is understood in theory but not in practice as the subject itself in the form of externality, hence as the limit (or limits) against which it strives in continually widening its sphere of practical action. The identity in difference between subject and object grounded in the subject's activity is a qualified restatement of Kantian constructivism. It was pointed out above that Kant argues for constructivism in different places (above, in the transcendental deduction). Fichte similarly argues for constructivism in his restatement of the Kantian theory in his "Deduction of Representation," which is the deduction of an identity in difference between subject and object, knower and known.

The obscure account of "The Deduction," which is scarcely clearer than "The Transcendental Deduction" it is meant to replace, is presented in eleven numbered steps, which can be simply condensed as follows.

1. Fichte begins in claiming that the subject's activity—or again, the imagination—encounters a check, which can be intuited, and through which the activity is reflected in the reverse direction.

2. He elucidates this claim in asserting the subject posits—or again, considers itself—as intuiting in virtue of a so-called interplay in the imagination between itself and something else, which is the object or not-self. On the philosophical plane, productive activity is ascribed to the subject, which in turn is said to produce its object.

**(p.74)** 3. Fichte further distinguishes two types of activity: a real or practical activity due to the check, and an ideal or purely theoretical activity described as an absolute spontaneity.

4. Fichte takes the occasion to make a series of related points:

(i) Through the so-called absolute self—which results through abstraction from the surrounding context—the subject reflects its own activity, which extends to its object, where it is limited and determined.

(ii) There is an unconscious activity on the level of the productive imagination resulting in a so-called determinate product limiting reflected intuition. This product is the object, or not-self—in short, the surrounding context. In this setting, the object has a twofold function in limiting the subject, which, in this way, is determined, and which in turn makes possible the subject's intuition (of something).

(iii) Imagination is both productive and intuitive.

(iv) The subject's activity is opposed by another activity, which is “conserved” in the understanding.

(v) There is intuition of the opposing activity, since we are aware of our surroundings.

(vi) For Fichte, who distinguishes between what is represented and the representation, there is an interrelation between reality and negation, or between the subject as intuiting and the not-self as intuited.

5. Fichte explores this relation by calling attention to the distinction between activity in general (or pure activity), which is unlimited but which, as he says, “determines itself to determinate action (self-affection)” (*SK*, p. 212), and objective activity, which is limited.

6. In order to understand how intuition is conditioned or limited, Fichte differentiates free activity and passivity (or necessity), which he further unites in three ways: through compulsion determined by freedom, through freedom determined by compulsion, and when each determines the other in an interaction. At stake is a conception of the subject as both wholly free and as also determined. This is Fichte's version of Kant's dualistic view of the subject as causally determined but noumenally free.

7. Fichte claims that through reason, hence through an act of thought, the subject determines itself in the form of an object of thought, whose substrate is a noumenon. According to Fichte, the subject is not in fact, but only in theory, limited through a noumenon, which is nothing more than the result of the imagination.

**(p.75)** 8. If the subject is restricted, but not restricted by an object, then it is restricted only by itself. Fichte makes this point in introducing the concept of judgment.

9. Fichte posits the possibility of abstracting from objects in general, which, he asserts, is pure reason, or theoretical reason in the Kantian sense. What remains is the self-determining subject. In other words, after abstraction from the object, hence from the entire surrounding context, only the subject remains. According to Fichte, who

differentiates between empirical and pure forms of consciousness, one can abstract from the former but not from the latter.

10. This step merely confirms the contradiction between the subject's understanding of itself as both determinate and determining, as both practical and theoretical, which Fichte regards as the source of the Kantian antinomies. From the theoretical point of view, it is not possible to go further than to point out that the object is determined by the subject. It follows that, since the object is due to, or again explained through the subject, the subject determines itself.

11. Since in either its finite or infinite modes, the subject relates only to itself, Fichte thinks we have reached the limits of theoretical philosophy.

### Notes:

(1.) See Nicholas Lobkowitz, *Theory and Practice: History of a Concept from Aristotle to Marx* (Notre Dame: University of Notre Dame Press, 1967).

(2.) See Alexis Philonenko, *La liberté humaine dans la philosophie de Fichte* (Paris: Vrin, 1966).

(3.) See Marianne Weber, *Fichtes Sozialismus und sein Verhältnis zur Marx'schen Doktrin* (Tübingen: Mohr, 1900).

(4.) See "On the Common Saying: That May Be Correct in Theory, but It Is of No Use in Practice," in Immanuel Kant, *Practical Philosophy*, trans. and ed. Mary J. Gregor (New York: Cambridge University Press, 2005), pp. 273–310.

(5.) J. G. Fichte, *Fichte, Early Philosophical Writings*, trans. and ed. Daniel Breazeale (Ithaca: Cornell University Press, 1988), p. 73.

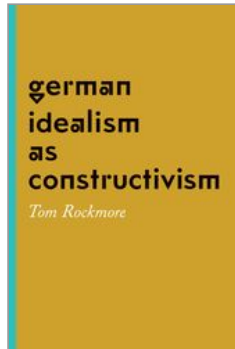
(6.) It is therefore ironic that Fichte was understood as a cognitive foundationalist by the early German romantics, who refuted the theory they attributed to him in opting for antifoundationalism. Hölderlin, Fichte's former student, played an important early role in this anti-Fichtean reaction. See F. Hölderlin, "Judgement and Being" (1795), in *Essays and Letters on Theory*, trans. and ed. T. Pfau (Albany: State University of New York Press, 1988).

(7.) On this point, see Isabelle Thomas-Fogiel, *Critique de la représentation: Étude sur Fichte* (Paris: Vrin, 2000).

(8.) Alone among the great German idealists, Schelling does not expound his position through a logic. Fichte's conception of logic has been much neglected. But see Wayne Martin, *Idealism and Objectivity: Understanding Fichte's Jena Project* (Stanford: Stanford University Press, 1997).

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### German Idealism as Constructivism

Tom Rockmore

Print publication date: 2016

Print ISBN-13: 9780226349909

Published to Chicago Scholarship Online: January 2017

DOI: 10.7208/chicago/9780226350073.001.0001

### Schelling, the Philosophy of Nature, and Constructivism

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DOI:10.7208/chicago/9780226350073.003.0005

#### Abstract and Keywords

The fourth chapter is entitled “Schelling, the philosophy of nature, and constructivism.” Schelling, even more than Reinhold, is a protean thinker. But like Reinhold, Schelling’s relationship to German idealism remains unclear. The chapter examines Schelling’s dualistic effort, in his Fichtean phase, to supplement transcendental philosophy through philosophy of nature as well his later break with idealism following the publication of his *System of Transcendental Idealism*. I argue that Schelling was in a sense never a German idealist, since his Spinozistic view of identity is different from and incompatible with the idealist thesis of identity in difference.

**Keywords:** Friedrich Schelling, philosophy of nature, Karl Leonhard Reinhold, Johann Gottlieb Fichte, *System of Transcendental Idealism*, identity

We will be interested in Schelling only insofar as he contributes (or at least seems to contribute) to the German idealist constructivist approach to cognition. Schelling’s labile position changed very rapidly. The transition from Fichte to Schelling reflects the latter’s early effort—initially successful but later unsuccessful—to cast himself as a mere Fichtean disciple, then his later emancipation from Fichte, including his qualified return behind Fichte toward Kant through the formulation of his own version of philosophy of nature. A series of new themes emerge in this period, including constructivism (or construction), Schelling’s version of the philosophy of identity, and his turn to the philosophy of art.

German idealist constructivism is often understood as a philosophy of identity. This identity takes two main forms: a complex identity of identity and difference, which is formulated in related ways by Kant, Fichte and Hegel, as noted above; and a simple identity formulated by Schelling, who, in following Spinoza, falls outside German idealism as understood here. Many—

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perhaps even most—observers agree that the later Schelling moves beyond German idealism. Yet if the latter movement is defined by the slogan of the identity of identity and difference, then perhaps Schelling was never a German idealist other than in name.

According to Harold Bloom, great poets misread each other in the course of working out their own poetry.<sup>1</sup> This could be true of philosophers as well. Schelling's beginning point in philosophy lies in his effort to develop Fichte's difficult position. Schelling, who at least early on thought of himself as a faithful **(p.77)** Fichtean, seems to have misunderstood Fichte as well as German idealism in general. It is arguable that the view he developed as a supplement to Fichte's is neither compatible with the latter's position nor with "German idealism." Now, this term—about which there has never been agreement—is used in many, often incompatible ways. Yet if, as seems plausible, there is an overall unity running throughout Schelling's protean position, and if this concerns "identity" but not "identity in difference," then it is at least arguable he was never a German idealist, or at least never a German idealist in this specific sense.

### Schelling's Philosophy of Nature, Philosophy of Art, and Philosophy of Identity

Schelling, who is an unusually protean thinker, made contributions in a wide variety of fields. They include at a minimum philosophy of nature, philosophy of art, and philosophy of identity, as well as later the philosophy of mythology. Fichte, who is mainly a philosophical autodidact, is not well read in the history of philosophy, in which Schelling is unusually well versed. Schelling plays different roles in this period: as Fichte's self-appointed disciple; as Hegel's younger roommate in the Tübinger Stift and later sometime patron in Jena; as the inventor of a significant post-Kantian philosophy of nature; as supposedly the first to formulate a philosophical theory of aesthetics; and so on. During and after his Fichtean period he simultaneously favors philosophy of nature while also formulating theories of art and history.

Schelling—who was always an original thinker—in his early writings, in line with then current practice, adopted the pose of the disciple in masking his own originality. Yet even in these writings, when he was consciously striving to be a so-called authentic Fichtean, he was already on the way to formulating his own position. Fichte's position differs from Kant's—which, despite Fichte's insistence, he never simply restates in his own language. A similar point is correct about Schelling. Even at its inception, Schelling's view is always different from Fichte's, above all through the philosophy of nature (*Naturphilosophie*), which lacks even a partial equivalent in Fichte's thought.

In part, because of the many different themes Schelling embraces, he is difficult to categorize. His writings are sometimes divided into different periods, including, for instance: transcendental philosophy and the philosophy of nature, then later the system of identity, followed by the system of freedom, and finally positive philosophy. The first and second phases are closely related to the constructivist strand of German idealism. Yet many of Schelling's early **(p.78)** and especially later concerns diverge from this model. Thus it is sometimes noted that his later interests in empiricism and materialism lie outside German idealism, however understood.<sup>2</sup>

Schelling's most intensive interaction with German idealism occurs during the period leading up to and culminating in the *System of Transcendental Idealism*. The resulting subsequent break with Fichte led him toward other themes, including freedom, mysticism, and philosophy of religion.

There is an analogy between the emergence of Fichte's and then Schelling's positions. Fichte's position arises in the midst of the ongoing effort to carry forward and complete the critical philosophy. Schelling's emerges in the effort to carry forward and complete Fichte's transcendental philosophy. Schelling, who was born in 1775, began to publish while still a teenager in 1793. He quickly turned to Fichte in "On the Possibility of the Form of Philosophy in General" ("Über die Möglichkeit einer Form der Philosophie überhaupt," 1794), which was followed in the next year by "On the Self as Principle of Philosophy, or on the Unrestricted in Human Knowledge" ("Vom Ich als Prinzip der Philosophie, oder über das Unbedingte im menschlichen Wissen," 1795). Other contributions quickly followed.

In the meantime, Schelling became interested in natural science, which nearly immediately led to his effort to formulate a philosophy of nature. Schelling left the Protestant seminary in Tübingen in 1795 and moved to Leipzig in 1796, where he briefly studied medicine, physics, and mathematics. As a result of his scientific studies, Schelling quickly developed a general theory of nature in moving away from his earlier Fichtean perspective while simultaneously striving to remain within a broadly Fichtean approach.

Though Schelling considered himself to be Fichte's disciple until the publication of the *System of Transcendental Idealism* in 1800, there is much confusion about this claim. The lyric poet Heinrich Heine, a former Hegel student and an interested observer of the German philosophical scene, remarks that the emergence of philosophy of nature seemed to observers to suggest a replacement for idealism.<sup>3</sup> In that case, it would lie outside this tendency. Fichte, who was clearly a partisan observer, suggested that, on the contrary, Schelling did not propose substantive changes to his (Fichte's) position but merely remodeled the terminology.<sup>4</sup>

### Schelling on Construction and Constructivism

Schelling's theory of construction is closely related to his theories of art and philosophy of nature. Since there is little attention paid to German idealist **(p.79)** constructivism, it is not surprising that Schelling's role in the post-Kantian development of cognitive constructivism is not well understood. For instance, Grant writes: "Schelling's post-Kantian confrontation with nature itself begins with the overthrow of the Copernican revolution."<sup>5</sup> Yet if, as seems plausible, Schelling's philosophy of nature commits him to the view that what one experiences is in a sense constructed by the subject, this understanding seems doubtful. In reacting to Kant, Fichte, and others, Schelling does not abandon but rather transforms the constructivism arising in different ways in the critical philosophy and its Fichtean restatement.

According to Schelling, the theme of philosophical construction will be one of the most important future scientific philosophical themes. His concept of constructivism, like his overall position, changes very rapidly. The term "constructivism" appears in his writings as early as his "Allgemeine Übersicht der neuesten philosophischen Literatur" (1797-1798), at about the same time as he turns to philosophy of nature. Schelling's view of constructivism initially appeared serially in the *Philosophisches Journal*. Since the journal was edited by Fichte and Niethammer, it not surprisingly reflected a "Fichtean" perspective.<sup>6</sup> At this point, before Schelling has freed himself from his self-assigned role as Fichte's disciple, he accepts the widespread Kantian view, influentially articulated several years later in Hegel's *Differenzschrift*, that one cannot go beyond either Kant's or Fichte's conceptions of philosophy. Further like Schelling, Hegel also strives to gain a general perspective on recent philosophical literature.

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In Schelling's slightly earlier effort to gain a general perspective on the recent debate, "construction" refers *inter alia* in three ways to: (1) the original activity of the subject itself; (2) the interaction of its two original "tendencies," an interaction that results in what the mind constructs, which in turn leads to the view that everything within consciousness is constructed by the mind (a view most clearly anticipated by Fichte); and (3) in a clear reference to the critical philosophy, to the table of categories of the understanding, which are expressions of "the primordial form in which the mind proceeds in all its constructions."<sup>7</sup>

Schelling further appeals to construction in his speculative account of the construction of matter in his philosophy of nature. In his *General Deduction of the Dynamic Process* (1800), which appeared in the *Zeitschrift für speculative Physik* shortly before the *System of Transcendental Idealism* was published, Schelling describes the sole task of natural science as the "construction of matter." This task can be accomplished only generally, not for each discrete appearance in nature. Since organic nature is a higher level or potency of the inorganic, the construction of matter is both the most basic as well as the most **(p.80)** general task of a philosophy of nature.<sup>8</sup> Schelling, who here sounds like a pre-Socratic cosmologist, makes the familiar ancient Greek heuristic assumption that nature can be understood through a primordial opposition of forces. This approach was certainly striking at the time of early Greek thought, and may still have appeared pertinent during the long period in which Aristotelianism held sway, but must already have seemed dated after the rise of modern science, hence well before Schelling.

In earlier writings, Schelling used the terms "attraction" and "repulsion" to refer to these forces, which he now calls "expansive" or "retarding" and "attractive." Yet the dualistic approach remains basically unchanged. The "expansive" force designates a pure production, which can never appear. The "retarding" or "attractive" force is the source of the real production that derives from the absolute opposition of these forces. As in *Ideas*, so here the different levels of inorganic nature (e.g., magnetism, electricity, and chemical interaction) are understood as aspects of the effort to reduce opposite factors to identity, hence to reinstate an original identity in place of the dualism that underlies nature as it appears.<sup>9</sup> In other words, inorganic nature turns out to be a combination of three basic processes. Similarly, organic nature is explained through three further elementary constituents: sensibility, irritability, and reproduction. In the *System of Transcendental Idealism*, Schelling later identifies phases in the history of self-consciousness. In this context, philosophy of nature functions in two ways: for the discovery of the natural science, and as a "physicalistic explanation of idealism,"<sup>10</sup> the latter leading nearly immediately to the break with Fichte.

Schelling's interest in constructivism survived his break with Fichte. He begins a text from 1803, two years after his break with Fichte, in stating that his aim is to surpass the narrow philosophical limits set by Kant and Fichte in directly addressing the method of construction.<sup>11</sup> At this point, Schelling believes that philosophy of nature and philosophy are co-equal approaches to the absolute, which is manifest in philosophy.<sup>12</sup> Philosophy of nature and constructivism are related in that the dualism between philosophy of nature and philosophy points to a single overall theory of what Schelling, in echoing Fichtean terminology, calls the absolute.

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### Philosophy of Nature and Transcendental Philosophy

The concept of identity is widespread in Schelling's thought. It occurs, for instance, in the philosophy of nature (*Naturphilosophie*), the theory of the **(p.81)** absolute, the philosophy of art, and again in the so-called Wurzburg system (1804). Kantian explanation, which is dualist, relies on both causality as well as the subject's activity. Fichte substitutes a monistic explanation solely through the subject's activity. In reacting against him, Schelling restores a dualistic approach through the distinction between transcendental philosophy, which he takes over from Fichte, and philosophy of nature, which is probably his most distinctive philosophical contribution. In supplementing transcendental philosophy with philosophy of nature, Schelling transforms Fichte's position in making a qualified, limited return to a form of Kantianism.

Schelling's early work features two disparate interests, pulling him in opposing directions, whose incompatibility he only later realizes: his initial concern to remain within the scope of Fichte's transcendental philosophy, and his effort, arising slightly later, to work out a philosophy of nature. Philosophy of nature, a dominant theme in Schelling's early writings, is clearly inconsistent with Fichte's transcendental philosophy. At the same time as he was most active with respect to philosophy of nature, Schelling was also still somewhat comically insisting that he was Fichte's legitimate disciple. This is comical since as everyone but Schelling—specifically including Fichte—realized, the two projects are incompatible. Fichte, who was troubled by Schelling's interest in philosophy of nature, seems never to have worked through Schelling's philosophy of nature with care. As late as a letter from Fichte to Schelling dated October 3, 1800, we find him saying that he has still not thoroughly studied Schelling's philosophy of nature. Slightly later, in a letter from Fichte to Schelling dated November 15, 1800, he reports his disagreement with Schelling's distinction between transcendental philosophy and philosophy of nature. In his response on November 19, 1800, Schelling, not to be deterred, contends that philosophy is the material proof of idealism. He further stresses a basic difference between philosophy of nature and the *Wissenschaftslehre*. According to Schelling, both belong to the system of philosophy, in which they differ as the theoretical and practical parts of philosophy.

In the *Critique of Pure Reason*, Kant's claim that objects must conform to our intuition suggests we cannot know nature as it is, or again, as it is in itself. In renewing the philosophy of nature, Schelling reaches back behind Fichte to Kant in taking natural scientific investigation a step further. Schelling's philosophy of nature takes shape as an attempt literally to "construct" (or to "deduce") nature not on quasi-Fichtean a posteriori but rather on quasi-Kantian a priori grounds, where "nature" is understood as what is in fact presupposed in the empirical investigations of the natural sciences as a so-called "objective system of reason."

**(p.82)** Schelling's philosophy of nature is based on his vision of the unity of spirit and nature. This vision derives from different sources, including Kant's a priori theory of nature, Herder's dynamic view of nature, Schelling's interest in Spinoza, and so on. Schelling's attempt to think nature as a whole can be understood an effort to overcome Kant's apparent inability to grasp the link between nature and freedom. His philosophy of nature is related to so-called romantic medicine (*romantische Medizin*), as distinguished from scientific medicine, which, through his influence, was popular around 1800.

The general problem is very old. A precursor of philosophy of nature is developed by the pre-Socratic Ionian cosmologists, then later by Plato in the *Timaeus*, a dialogue Schelling studied intensively. The form of philosophy of nature, which arises in reaction to Kant, is a critique of—as well as an alternative to—mechanistic, reductionist, or materialist accounts of nature. This approach, which goes all the way back to ancient Greek materialism, reaches a new peak in



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Kant. Philosophy of nature is a constant concern throughout Schelling's corpus. He seeks to rehabilitate nature objectively in making a transition, in Hegelian language, from subjective idealism to objective idealism.

Schelling developed his approach to the philosophy of nature in a series of early essays. He began to publish on philosophy of nature in 1797; at the same time as he strove (finally unsuccessfully) to maintain his claim to be a Fichtean before breaking with Fichte, he rapidly brought out three important works in this field (and a series of more minor works): *Ideas for a Philosophy of Nature* (1797), *On the World Soul* (1798), and *First Outline of a System of Philosophy of Nature* (1799). At this point, his approach to philosophy of nature is organized around the principles of polarity and dualism. In *On the World Soul*, Schelling writes: "It is the first principle of a philosophical doctrine of nature to go in search of polarity and dualism throughout all nature."<sup>13</sup> Schelling later claims that the two forces of "universal attraction and repulsion" suffice to identify "conditions for the possibility of all objective knowledge."<sup>14</sup> This approach reaches its peak almost immediately prior to the *System of Transcendental Idealism*, consummating the break with Fichte and quickly leading to Schelling's post-Fichtean identity philosophy. Schelling's interest in philosophy of nature, which survived this break, later continues in "On the Relationship of the Fine Arts to Nature" (1807), as well as in "Philosophical Inquiries into the Essence of Human Freedom" (1809). In the latter work, he curiously but incorrectly says that up until that point, everything he had done centered on philosophy of nature (VIII, 333; 1986, p. 3).<sup>15</sup> This same interest continues even later—for instance, in the *Introduction to Philosophy* (1830)—as well as in his last unpublished writings.

**(p.83)** What is Schelling's philosophy of nature?<sup>16</sup> He has at least three things in mind. First, he undertakes a qualified return to Kant in carrying philosophy of nature—suitably modified—beyond the place it reached in the critical philosophy. Second, as he only later realized, in working out a philosophy of nature he differentiates his position from Fichte's in providing an empirical dimension to transcendental philosophy. And third, starting in 1799, he reacts against Eschenmayer's criticism of the supposed independence of the philosophy of nature.

In his *Presentation of My System of Philosophy* (1801), Schelling develops the view that nature is not a product of reason; reason is not independent of, but rather arises within, nature. This makes the transition from what Hegel later calls subjective idealism to objective idealism. In keeping with his belief that the supposed sciences of transcendental philosophy and philosophy of nature are "complementary," Schelling claims the standpoint of philosophy is all inclusive, absolute reason, which yields knowledge of what he describes as "things as they are in themselves, i.e., as they are in reason."<sup>17</sup> In other words, everything is in reason and there is nothing outside reason.

Schelling, who understands philosophy from the standpoint of the absolute, contends that "Reason is simply one and self-identical."<sup>18</sup> He describes reason, following Fichte's *Wissenschaftslehre*, as the law of identity ( $A = A$ ). This suggests the further point: "The sole unconditioned cognition is that of absolute identity"<sup>19</sup> Schelling has in mind the Fichtean claim that the proposition  $A = A$  is the sole absolutely true proposition. This leads him to the very Fichtean statement that, as he writes, "Absolute identity simply IS and is as certain as the proposition  $A = A$  is."<sup>20</sup> In the remainder of the text, Schelling expands his view of absolute identity, which he describes in various ways. He emphasizes, for instance, the unity of transcendental philosophy and philosophy of nature in vindicating his quasi-Spinozistic dualism

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against Fichte's transcendental philosophy. And he restates Kant's Copernican claim for the identity of subject and object as a necessary condition of cognition.

Schelling's deep interest in the history of philosophy provides a useful clue to understanding his philosophy of nature, which is obviously multiply determined. Schelling's speculative philosophy of nature is an effort to revive Plato's speculative physics in the *Timaeus*. It is known that the very young Schelling was interested in this dialogue.<sup>21</sup> Schelling's philosophy of nature is also a qualified return, behind German idealism to empiricism as the true parallel to transcendental philosophy. Empiricism is linked to metaphysical realism through the claim that by grasping the empirical, one grasps what is. German idealism beginning in Kant rejects empiricism in favor of a Copernican reversal **(p.84)** as well as a categorial approach to experience. Schelling's further philosophy of nature revives empiricism in reversing the Kantian Copernican reversal, hence in returning to the traditional concern with metaphysical realism.

### Schelling's *System of Transcendental Idealism*

Kant's response to Hume's naturalist attack on causality reinstates causality as a transcendental condition of knowledge. Kant and then Fichte each work out approaches to cognition based on the constructivist identity in difference that Kant introduces in the Copernican turn. Schelling's philosophy of nature returns behind Fichte and Kant to a Spinozistic parallel between thought and being founded in a transcendental absolute.

Schelling, who is deeply steeped in the history of philosophy, is influenced by Plato, Kant, Fichte, Jacobi, Böhme, Spinoza, and many others. In *System*, he returns behind Fichte and Kant to Spinoza. After a period in which his thought was effectively proscribed because of the so-called *Pantheismusstreit*, beginning in the mid-1780s Spinoza came back into favor. Other contemporaries interested in Spinoza include F. Schlegel, Hegel, Hölderlin, and Goethe. Schelling's concern with Spinoza appears very early—prior to his turn to philosophy of nature, in which it arguably plays a role. Schelling claims to be a Spinozist as early as the letter to Hegel dated February 4, 1795. In the letter, Schelling uses Fichtean terminology in drawing attention to the critical philosophy: according to Schelling, who employs a Fichtean term incompatible with Kant, the critical philosophy begins from an absolute self; and dogmatic philosophy, which Kant rejects, starts from an absolute not-self, as in Spinoza.<sup>22</sup> At stake is the Fichtean alternative of whether (as Fichte thinks, and Schelling here accepts) philosophy worthy of the name must be idealism and start with the subject; or whether, on the contrary, it begins with object in taking shape as realism, which Fichte equates with dogmatism. Schelling, who does not wish to choose, subscribes simultaneously to both alternatives by favoring both idealism and dogmatism, or Fichte's transcendental idealism and philosophy of nature.

In his reaction to Descartes, Spinoza, a pantheist, identifies God with nature in considering thought and extension (or being) as two modes of substance. He famously insists on the parallel between ideas and things, or mind and nature.<sup>23</sup> It is not an exaggeration to say that in this way, Spinoza anticipates a central concern of German idealism, or the problem of the relation of thought and being leading to cognitive constructivism. Schelling adopts the **(p.85)** dualistic Spinozistic approach in suggesting that neither transcendental philosophy (that is, Fichte's position) nor philosophy of nature—through which the young Schelling supplements Fichte's transcendental philosophy—is adequate by itself. Since each science is incomplete and presupposes the other (*STI*, p. 34), a successful theory must combine both. Schelling regards his

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task as providing a theoretical proof of the complementary nature of these two opposing sciences (*STI*, p. 18).

In *System of Transcendental Idealism*, Schelling further differs with Fichte in three important ways. One is the concept of the absolute, or absolute identity, as the harmony between the subjective and the objective (see (*STI*, p. 4). A second is the emphasis on history, which is not important in Fichte's early *Science of Knowledge*.<sup>24</sup> This theme only becomes a significant factor Fichte's position later and in an inadequate, stunted form.<sup>25</sup> Finally there is a philosophy of art wholly lacking in Fichte, but which occupies the final part of Schelling's *System*.

Subjectivity is a central theme present throughout the entire modern tradition, including German idealism. It has already been pointed out that Kant's critical philosophy features an unresolved dualism between an abstract subject and philosophical anthropology, which he is never able to bring together in a single overall synthesis. Fichte uses "self" (*das Ich*) to refer to finite human being understood practically (or within the social context) and "absolute self" (*das absolute Ich*) to refer to the human subject understood theoretically (or in isolation from the prevailing social context). In working out his conception of identity from a Spinozistic perspective, Schelling isolates the absolute from finite human being, or the Fichtean self. Schelling's concept of the absolute transforms Fichte's view of ordinary human being into an abstract principle intended to function as the ultimate source of subjectivity, objectivity, and their relation.

Kant employs "absolute" to designate what is not merely comparative or conditionally valid (*CPR*, B 362, p. 401). In this way, he calls attention to the subject as wholly undetermined, hence capable of unrestricted self-determination. Fichte introduces a distinction between finite human being and the absolute (or undetermined) self-determining subject in directing attention to the absolute, or absolute self. The latter term points to a conception of the object as constructed by and knowable by the subject. In other words, in reacting to Fichte's solution to the problem of knowledge, Schelling separates the absolute, understood as an autonomous subject, from subjectivity and objectivity.

**(p.86)** Kant's stress on system as the unity of cognition under a single idea suggests the need for post-Kantian German idealists to organize their theories around a single basic explanatory principle. Fichte's absolute subject takes the place of Reinhold's principle of consciousness as the ultimate explanatory principle, for which Schelling in turn substitutes his own view of the absolute. Spinoza makes subjectivity and objectivity depend on substance. Schelling's concept of the absolute modifies the Fichtean concept of the absolute in Spinozistic fashion. In "The Aenesidemus Review," from his theoretical perspective, Fichte posits the absolute subject as wholly undetermined as well as self-determining. The absolute subject explains the relation of the internal and the external, the subject and its surroundings.

Schelling's absolute (or autonomous) subject functions as the mediating link between subject and object, subjectivity and objectivity. He seems to be suggesting, against Fichte, there is at least in principle knowledge of the absolute—or, if it is God, knowledge of God. Other contemporary thinkers (such as Novalis) claim, on the contrary, the impossibility of knowing an absolute.<sup>26</sup>

In rethinking the absolute as neither subjective nor objective, Schelling adds historical and artistic dimensions. The concept of the absolute continually evolves in his text. He initially

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introduces it during his Fichtean phase as a purely speculative concept in borrowing heavily from Spinoza. In the *Statement of My System*, where he displays his system as his own following the break with Fichte, Schelling writes:

The absolute is that which is in itself neither thought nor being, but which, for that very reason, is absolute. Since reason is challenged to think the absolute neither as thought nor as being, but to think it nonetheless, a contradiction arises for reflection, since it conceives the absolute either as a case of being or a case of thinking. But intellectual intuition enters even into this contradiction and produces the absolute. In this breakthrough lies the luminous point where the absolute is positively intuited.<sup>27</sup>

At this point, Schelling thinks the absolute can be intellectually intuited. He further suggests in his second theorem that “outside reason is nothing, and in it is everything.” This suggestion points to Spinoza’s insight: “Whatever is, is in God, and without God nothing can be or be conceived.”<sup>28</sup> In the *Fernere Darstellungen*, Schelling says: “The essence of the absolute in and for itself says nothing to us, it fills us with images of an infinite enclosure, of an impenetrable stillness and concealment,” until the absolute’s form asserts itself in its **(p.87)** own shape, “the day in which we comprehend that [essential] night and the wonders hidden in it, the light in which we clearly discern the absolute.”<sup>29</sup>

In the introduction to the *System of Transcendental Idealism*, Schelling situates his task with respect to Fichte’s position. Here he describes transcendental idealism as a system of all knowledge (*STI*, p. 1). Fichte, who typically poses as a seamless Kantian, leaves Kant’s transcendental philosophy behind in rejecting Kant’s abstract analysis of the general conditions of knowledge in favor of what, in the *Wissenschaftslehre* (1794), he describes as “a pragmatic history of the human mind” (*SK*, pp. 198–99). Schelling similarly describes philosophy as “a progressive history of self-consciousness” (*STI*, p. 2). Unlike Fichte but like Spinoza, he presents the different stages as a sequence in depicting the supposed parallelism between nature and intelligence (*STI*, p. 2). At this point, Schelling still thinks of himself as a Fichtean, and of his position as no more than a further development of transcendental idealism. Yet he has already left Fichte behind in a qualified return to Kant and the pre-Kantian Spinoza. According to Schelling, the sciences of nature and intelligence—the philosophy of nature and the transcendental philosophy—are equally important. Neither is prior to the other and neither is adequate by itself (*STI*, pp. 2–3). This statement points to, but does not mention, the absolute as the third factor linking subjectivity and objectivity in Schelling’s analysis.

Intuition plays a different role in Kant and in his German idealist successors. Kant famously denies intellectual intuition but allows sensory intuition. At stake is whether the cognitive subject has or even in principle could have a quasi-Platonic direct, unmediated grasp of either itself in the form of self-consciousness or of the external object. In reacting to Kant, Fichte restores intellectual intuition. According to Fichte, the subject has intellectual intuition in that it acts (*SK*, p. 38), hence comes to exist for itself (*SK*, p. 34). For Schelling, who further develops this concept, the subject intuits itself as productive (see (*STI*, pp. 94–95).

Schelling links his position to constructivism in contending that “all proofs for the existence of external things must be derived from the primordial mechanism of intuition itself, that is, by a genuine construction of objects” (*STI*, p. 3). Hence for Schelling intuition turns out to be constructive or constituting. Schelling further goes beyond history in linking knowledge and history. Fichte, who discusses history, to the best of my knowledge never directly links knowledge and history. Rather, in *The Characteristics of the Present Age* (*Die Grundzüge des*

## Schelling, the Philosophy of Nature, and Constructivism

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*gegenwärtigen Zeitalters* (1806), he proposes a stepwise development of human history that, in reacting to Schelling, builds on the latter's division of human history into destiny, nature, and Providence.

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### **(p.88)** Schelling and the Philosophy of Art

In *System of Transcendental Idealism*, Schelling further works out theories of art and history. His view of history is typically complex. According to Schelling, the truths of practical philosophy emerge objectively in history in the form of a harmony between subjectivity and objectivity (*STI*, p. 4). Yet from the perspective of transcendental idealism as expounded in the *Wissenschaftslehre*, the proof that all knowledge must be derived from the self or subject leaves unexplained the objective world, including history (*STI*, p. 34).

In the foreword, Schelling immediately announces his intention to present the solution to all possible problems in a single system. Both transcendental philosophy and philosophy of nature are necessary, but neither is sufficient. Through the proposed deduction of history, he claims to prove the harmony between the subjective and the objective through an absolute identity. This is, he tells us, the solution to the problem of the coexistence of mechanism and purpose, or the unsolved problem running throughout Kant's third *Critique*. Schelling's demonstration peaks in what he now calls the philosophy of art.

Schelling adopts a form of the familiar teleological approach to history<sup>30</sup> in denying it can be devoid of necessity. According to Schelling, there is, for example, no history of nature since history is neither absolutely lawful nor absolutely free (*STI*, p. 199). Like Kant, he claims that history features an ideal realized not in the individual, but rather in the species (*STI*, pp. 200, 202, 207)—according to Schelling, through the progressive so-called self-disclosing of the absolute (*STI*, p. 211). History, which is opposed to theory, is composed of events that cannot be calculated nor foreseen since, as Schelling darkly says, "choice is ... the goddess of history" (*STI*, p. 200), which progresses toward "a political world order" (*STI*, p. 202). What Schelling depicts in Spinozistic fashion as the preestablished harmony of the objective and the subjective, of unconscious as well as conscious historical acts, can be understood only if both are united in a "higher thing" that "can be neither subject nor object, nor both at once, but [are] only the absolute identity" (*STI*, p. 209; see also p. 221). According to this view, the absolute unites not only the subjective and the objective but also the entire species.

Schelling's ontological reinterpretation of the absolute identifies an intrinsic connection between epistemology and aesthetics in reestablishing a link broken by Plato. In developing both Kant's concept of genius as someone who creates beyond rules and Fichte's theory of activity, Schelling suggests the work of art is a product of spontaneity. Science and art are both means of **(p.89)** revealing the absolute. This approach quickly leads to systematic philosophical presentation of various kinds of art in Schelling's *Philosophy of Art* and in Hegel's *Aesthetics: Lectures on Fine Art*.

In part 6 of his *System of Transcendental Idealism*, Schelling sketches his philosophy of art. Art unites freedom and necessity in a product common to both. The absolute is the common ground of a preestablished harmony between the conscious and the unconscious. Schelling follows Kant's view that art is the result of genius. He describes art as a revelation that is neither objective nor subjective, and that, since it is not the result of mere talent, can neither be learned nor acquired. Artworks depict the identity of the conscious and the unconscious. The identity between the subjective and objective dimensions is given in intellectual intuition via philosophy and in artworks via aesthetics. According to Schelling, "art" serves "as the only true and eternal organ and document of philosophy, which ever and again continues to speak to us of what philosophy cannot depict in external form, namely the unconscious element in acting and producing, and its original identity with the conscious" (*STI*, p. 231). For Plato, knowledge of reality is unavailable through art and art objects of all kinds: it is available only through

philosophy. According to Schelling, in and through works of art we accede to knowledge of what cannot otherwise be known, and which cannot be known rationally, but which is known aesthetically. We can only know the absolute underlying the difference between human being and nature through art. The highest form of life is not the philosophical but rather the artistic, since “art brings *the whole man*, as he is, to that point, namely to a knowledge of the highest” (*STI*, p. 233).

### Schelling's Philosophy of Identity

It is often held that through reflection, consciousness becomes self-conscious. Thus Jacobi argues that self-consciousness presupposes an original, “irreflexive” identity.<sup>31</sup> In his conception of the absolute, Schelling contributes to a form of identity arising out of—but different from—Kantian constructivism, in re-centering the relation between subjectivity and objectivity. Schelling evokes this form of identity in the first sketch of his philosophy of the Ages of the World (*Weltalter*), where, in sounding a Spinozistic theme, he typically suggests that the spiritual and the bodily are two sides of the same existence.<sup>32</sup>

This new form of identity—arising through Schelling's effort to supplement transcendental philosophy through philosophy of nature—falls outside German idealist constructivism. In his conception of the absolute, Schelling directs attention to the identity between subjectivity and objectivity, subject **(p.90)** and object, knower and known in displacing the central point that Fichte locates in the subject to an identity prior to either subject or object. In other words, the central point shifts back from the subject to an identity prior to either subject or object, in what appears as a qualified return behind Fichte to Kant.

Kant's Copernican turn suggests a structured identity—more precisely, the identity between identity and difference, between subject and object (or objectivity and subjectivity). It is this Kantian identity that Fichte restates as the first absolute unconditioned principle of the *Science of Knowledge*, or  $A = A$  (see *SK*, pp. 93–102). Fichte's analysis of knowledge presupposes an identity between thought and being. In “The First Introduction,” he claims that approaches to knowledge through either idealism or realism are equivalent since neither can refute the other. Yet he denies that idealism and realism are on the same plane, which Schelling later asserts against Fichte in turning to philosophy of nature. Schelling's solution is to return to a form of Leibniz's pre-established harmony. In the Herz letter and throughout the *Critique of Pure Reason*, Kant rejects this strategy as unintelligible. Yet Schelling revives it early in his Fichtean period in simply assuming without argument “the fact that the absolute-ideal is also the absolute-real” since in the final analysis there is no difference—none whatsoever—between the activity of the transcendental subject and the primordial activity of nature.<sup>33</sup>

This approach takes different forms in his position. One is the so-called point of indifference (*Indifferenzpunkt*), which expresses the absolute identity that, according to Schelling, is the condition of the differentiation into objectivity and subjectivity. Thus in his early account of philosophy of nature, he suggests “an indifference between absolute knowing and the absolute itself.”<sup>34</sup> And he further describes nature as the visible spirit, and spirit as the invisible nature.<sup>35</sup>

This insight returns in different forms throughout Schelling's writings. For instance, in *System*, written at the very end of Schelling's Fichtean period, the absolute assumes the form of a preestablished harmony between both. In relation to history, he writes: “This deduction of history leads directly to the proof that what we have to regard as the ultimate ground of

harmony between the subjective and the objective in action must first be conceived as an absolute identity" (*STI*, p. 4).

Schelling's reflections on identity are still surprisingly up to date. Under the influence of Spinoza as well as modern science, Schelling refuses any causal interaction between mind and matter, which he describes as two aspects of substance. It is easy to see here an anticipation of contemporary mind-brain **(p.91)** identity theory. According to Schelling, there is no causal link between the real and the ideal, being and thought.<sup>36</sup> The quasi-Spinozistic result is neither idealism nor realism, but a supposed "fusion" of both under the heading "Real-Idealismus." The point—which is important, but rarely understood in the haste to criticize idealism as anti-realist—is that, as Leibniz earlier thought and Schelling here notes, idealism is not only compatible with but also based on realism, whose understanding differs according to the idealist in question. In other words, according to Schelling, realism is the basis of idealism, which arises out of it.<sup>37</sup> In short, rather than denying realism (as is often thought), idealism expressly features it.

Schelling's investment in the theme of identity has an equivocal result. In adopting a conception of the absolute that, like the thing in itself, can neither be directly experienced nor known, he turns resolutely against a constructivist solution to the cognitive problem, hence resolutely against Kant. This means that the identity in question—which for Fichte is central to the Kantian project, and for Hegel later becomes the cornerstone of his theory of knowledge—is for Schelling beyond conceptual bounds, always and infinitely postponed, never given in experience, and in fact not practically possible. Rather than furthering the constructivist theme of the complex, structured identity of identity and difference, Schelling should rather be understood as someone who strongly opposes this entire approach. One way to put the point is to say that in different ways, Kant, Fichte, and Hegel are centrally concerned with the logic of the identity of identity and difference as the condition of knowledge. Yet Schelling paradoxically contributes to, but also decisively abandons, the entire problem. For this reason, it is best to regard him not as reaching the high point of German idealism, but rather as someone whose thinking—though stimulated by his interaction with the great German idealists—simply falls outside German idealism.

### Notes:

(1.) See Harold Bloom, *The Anxiety of Influence: A Theory of Poetry* (New York: Oxford University Press, 1997).

(2.) See, for example, Jürgen Habermas, "Dialectical Idealism in Transition to Materialism: Schelling's Idea of a Contraction of God and Its Consequences for the Philosophy of History," in *The New Schelling*, ed. Judith Norman and Alistair Welchman (New York: Continuum, 2004), pp. 43–89.

(3.) See Heinrich Heine, *Religion and Philosophy in Germany: A Fragment*, trans. John Snodgrass (Albany: State University of New York Press, 1986), p. 146.

(4.) For Fichte's view of Schelling's efforts to state his own position in independence of Fichte's, see "Bemerkungen bei der Lektüre von Schellings Transzendentalen Idealismus (1800)" and "Zur Darstellung von Schellings Identitätssysteme" in *Fichte-Werke*, vol. 11 (Berlin: Walter de Gruyter, 1911), pp. 361–389.



(5.) I. H. Grant, *Philosophies of Nature after Schelling* (London: Continuum, 2006), p. 6.

(6.) For Schelling's view of construction at the time he was still in the process of freeing himself from Fichte, see his review essay in *Das kritische Journal der Philosophie* (1802), entitled "Über die Construction in der Philosophie." Schelling here reviews a book entitled *Abhandlung über die philosophische Konstruktion, als Einleitung zu Vorlesungen in der Philosophie*, by Benj. Carl H. Hoyer, Aus dem Schwedischen, Stockholm bey Sieverstolpen, in Kommission bey Perthes in Hamburg, 1801. Both Schelling's review and Hoyer's book focus on Kant's conception of construction in the account of transcendental method (CPR, B 740–766, pp. 630–643). For discussion, see Rainer Schäfer, *Die Dialektik und ihre besonderen Formen in Hegels Logik—Entwicklungsgeschichtliche und systematische Untersuchungen*, in *Hegel-Studien Beiheft* 45 (2001): p. 84n214.

(7.) F. W. J. Schelling-Sämtliche Werke, vol. 3, ed. K. F. A., Schelling (Stuttgart, 1586–1861), p. 107; *Historisch-kritische Ausgabe, im Auftrag der Schelling-Kommission der Bayerischen Akademie der Wissenschaften*, ed. H. M. Baumgartner, W. G. Jacobs, H. Krings (Stuttgart 1976; Eng. trans., p. 107).

(8.) Friedrich Wilhelm Joseph Schelling, "Allgemeine Deduktion des dynamischen Prozesses oder Kategorien der Physik," in *Zeitschrift für speculative Physik*, vol. I, ed. Manfred Durner (Hamburg: Felix Meiner Verlag, 2001), pp. 69–70.

(9.) Ibid., pp. 70–72.

(10.) Ibid., pp. 162–163.

(11.) F. W. J. Schelling, "Über das Verhältnis der Naturphilosophie zur Philosophie überhaupt" (1802), in *Sämtliche Werke*, vol. 3, pp. 526–545.

(12.) See, for example, *ibid.*, pp. 526–544.

(13.) Schelling, *Sämtliche Werke*, vol. 2, pp. 459.

(14.) F. W. J. Schelling, *Ideas for a Philosophy of Nature as Introduction to the Study of This Science*, trans. Errol E. Harris and Peter Heath (New York: Cambridge, 1988), p. 171.

(15.) F. W. J. Schelling, *Philosophical Investigations into the Essence of Human Freedom*, trans. Jeff Love and Johanna Schmidt (Albany: State University of New York Press, 2006), p. 4.

(16.) For an account of Schelling's philosophy of nature against the historical background, see Dale Snow, *Schelling and the End of the Philosophy of Nature* (Albany: State University of New York Press, 1996), pp. 67–93. For an account of Schelling's influence on later discussion of nature, see Grant, *Philosophies of Nature*.

(17.) F. W. J. Schelling, *The Philosophical Rupture between Fichte and Schelling: Selected Texts and Correspondence (1800–1802)*, trans., ed., and with an introduction by Michael G. Vater and David W. Wood (Albany: State University of New York Press, 2012), p. 146.

(18.) Schelling, *Philosophical Rupture*, p. 147.

(19.) Ibid.

(20.) Ibid., p. 148.

(21.) Beierwaltes has studied the influence of this dialogue on Schelling and German idealism in general. See Werner Beierwaltes, "Plato's *Timaeus* in German Idealism: Schelling and Windischmann," in *Plato's Timaeus as Cultural Icon*, ed. Gretchen J. Reydam-Schils (Notre Dame, IN: University of Notre Dame Press, 2002).

(22.) For this letter, see G. W. F. Hegel, *Hegel: The Letters*, trans. Clark Butler and Christiane Seiler; with commentary by Clark Butler (Bloomington: Indiana University Press, 1984), pp. 32–33.

(23.) See part 2, prop. VII, in Benedict de Spinoza, *Works of Spinoza*, vol. 2, trans. R. M. H. Elwes (New York: Dover, 1951), p. 86.

(24.) In the wake of the great French Revolution, the problem of history attracted increasing attention from a variety of thinkers, including Herder and F. Schlegel. For Schlegel's view of historicism, see "Lessings Gedanken und Meinungen," in *Kritische Friedrich Schlegel Ausgabe*, vol. 23, ed. Ernst Behler, J.-J. Anstett, and H. Eichner (Paderborn: Schöningh, 1958–), pp. 46–102, esp. 51–60.

(25.) See J. G. Fichte, *Die Grundzüge des gegenwärtigen Zeitalters* (Hamburg: Meiner Verlag), 1956.

(26.) See Novalis, *Fichte Studies*, ed. Jane Kneller (Cambridge: Cambridge University Press, 2003), no. 566, pp. 167–168.

(27.) Cited in Schelling, *Philosophical Rupture*, p. 296n26.

(28.) Ibid., p. 146.

(29.) Ibid., p. 221.

(30.) See Karl Löwith, *Meaning in History* (Chicago: University of Chicago Press, 1957).

(31.) See Friedrich Heinrich Jacobi, *Ueber die Lehre des Spinoza in Briefen an den Herrn Moses Mendelssohn* (Breslau, 1789), esp. *Beilage*, appendix 7, pp. 398–434.

(32.) "Früh finden sich Geistiges und Leibliches als die zwey [...] Seiten derselben Existenz ein [...] Gäbe es nicht einen solchen Punkt, wo Geistiges und Physisches ganz in einander sind, so würde die Materie nicht, wie es unläugbar der Fall ist, der Wiederhöhung in dasselbe fähig seyn." F. W. J. Schelling, *Die Weltalter, Fragmente, in den Urfassungen von 1811 und 1813*, ed. Manfred Schröter (Munich: Biederstein und Leibniz, 1946), p. 32.

(33.) See Schelling, *Philosophy of Nature*, p. 44.

(34.) Ibid., p. 44.

(35.) "Die Natur soll der sichtbare Geist, der Geist die unsichtbare Natur sein. Hier also, in der absoluten Identität des Geistes in uns und der Natur außer uns, muß sich das Problem, wie eine

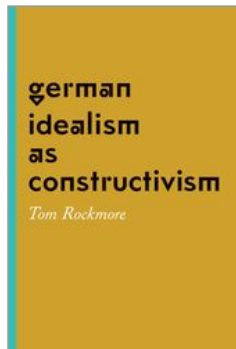
Natur außer uns möglich sei, auflösen." F. W. J. Schelling, "Ideen zu einer Philosophie der Natur," in *Schelling-Werke*, vol. 1, ed. Manfred Schröter (München: Beck, 1927), p. 706.

(36.) Schelling writes: "Zwischen Realem und Idealem, Seyn und Denken ist kein Causalzusammenhang möglich, oder das Denken kann nie Ursache einer Bestimmung im Seyn, oder hinwiederum das Seyn Ursache einer Bestimmung im Denken seyn.-Denn Reales und Ideales sind nur verschiedene Ansichten einer und derselben Substanz, sie können also wenig etwas ineinander bewirken, al seine Substanz etwas in sich selbst bewirken kann." Schröter, ed., *Schelling-Werke*, vol. 1, part 6, p. 500.

(37.) Schelling writes: "In ihm [diesem System] der Idealismus selbst einen Realismus zur Basis hatte und aus einem Realismus entwickelt wurde." Schröter, ed., *Schelling-Werke*, vol. 1, part 10, p. 107.

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## German Idealism as Constructivism

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Print publication date: 2016

Print ISBN-13: 9780226349909

Published to Chicago Scholarship Online: January 2017

DOI: 10.7208/chicago/9780226350073.001.0001

Hegel, Identity, and Constructivism

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DOI:10.7208/chicago/9780226350073.003.0006

### [–] Abstract and Keywords

“Hegel, Identity and Constructivism,” the fifth chapter, examines the relationship of Hegel, beginning in the so-called *Differenzschrift*, his first philosophical publication, to Kant, Fichte and Schelling, his great idealist predecessors. I further discuss the emergence of Hegel’s constructivist theory of cognition in the *Phenomenology* as well as its application in his *Philosophy of Nature*. The chapter finally considers Hegel’s understanding of the link between dialectical logic and cognitive constructivism in both the smaller and greater *Logics*.

**Keywords:** Georg Wilhelm Friedrich Hegel, identity, constructivism, Immanuel Kant, Johann Gottlieb Fichte, Friedrich Schelling, *Phenomenology*, *Philosophy of Nature*, *Science of Logic*

Copernican constructivism is the central thread of Kant’s position as well as of the post-Kantian German reaction to the critical philosophy. The Copernican turn, which features the identity of identity and difference, runs throughout the Hegelian position. This point determines Hegel’s relation to the ongoing debate—more precisely, his link to Kant, Fichte, and Schelling.

Observers often think Schelling influences Hegel more than Fichte does, but the opposite seems closer to the mark. This point has often been argued. A number of observers—including Bourgeois, Horstmann, and Gérard—think Hegel, in distancing himself from Schelling, also distanced himself from the identity thesis.<sup>1</sup> Though Hegel distanced himself from Schelling’s Spinozistic form of the identity thesis, he did not distance himself from either the identity thesis or constructivism, from which it stems. On the contrary, Hegel, in relying on Fichte’s version of constructivism, sought to deepen it. It follows that through his constructivist commitment, Hegel is more strongly influenced by Fichte than by Schelling.

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There are two main differences between Fichte's and Hegel's approaches to constructivism. On the one hand, Hegel reformulates the Fichtean effort to explain experience and knowledge from the perspective of the subject as an interaction between individuals and the world, leading to what he calls the experience of consciousness. On the other hand, Hegel is a historical thinker—one of the most historical thinkers in the tradition. Hegelian constructivism differs from Fichte's through its deeply historical character.

Fichte, Schelling, and Hegel were contemporaries who interacted both personally as well as philosophically. Schelling, Hegel, and the German poet **(p.93)** Hölderlin were roommates in the Protestant seminary. Fichte preceded both Schelling and Hegel in Jena, where Schelling arrived before Fichte left in the wake of the atheism dispute. Schelling came to Jena, where he became a professor, then arranged for Hegel to come there as an unpaid assistant (then as now the practice in Germany). Hegel's philosophical position begins to take shape in the *Differenzschrift*, his initial philosophical publication, where he appraises the theories of Fichte and Schelling (according to Hegel, the only philosophical contemporaries worthy of the name) and of Reinhold (in Hegel's opinion, at the time the leading nonphilosopher). This text provides Hegel's account of the transition between Kant, Fichte, and Schelling. It builds on his understanding of these thinkers in beginning to formulate his own emerging view. According to Kant, the critical philosophy was true and there could never be more than one true theory. This Kantian view forms the background of Hegel's text, which focuses on a series of related themes.

### On Hegel's *Differenzschrift*

The *Differenzschrift* can be read from different perspectives: as an account of the ancient Greek problem of the relation of identity and difference<sup>2</sup>—for instance, the relation of one over many, to which Plato refers in his account of the forms in his middle period,<sup>3</sup> or again, as an assessment of the state of philosophy at the turning of the nineteenth century through the views of Kant, Fichte, Schelling, and Reinhold. Since we are concerned with the reaction to Kantian constructivism, it will be useful to follow the latter approach here.

According to Hegel, the term “difference” in the title of the *Differenzschrift* indicates the need for philosophy. The view of the identity of identity and difference, which later becomes central to Hegel's approach to cognition, is already at work in Hegel's interpretation of the differences between Fichte and Schelling.

The title of Hegel's text is misunderstood as suggesting that the young Hegel intended to endorse the Kantian view of earlier philosophy as dogmatic, hence uncritical. For Kant, the spirit and the letter of philosophy coincide in the critical philosophy. Hegel, who denies this claim, is concerned with separating the spirit from the letter of the critical philosophy in carrying forward the former while discarding the latter.

At the time he wrote this text, the young Hegel regarded the views of Fichte and Schelling as successive versions of the critical philosophy. Hegel's interpretation of his idealist colleagues Kant, Fichte, and Schelling is subtle and complex, both deeply Kantian but also profoundly anti-Kantian, based on a **(p.94)** detailed grasp of their respective theories as well as the entire contemporary debate. Hegel's Kantianism is above all visible in his effort to work out an acceptable version of cognitive constructivism. His many-sided anti-Kantianism takes many forms centering on his turn away from an a priori (hence ahistorical) to an a posteriori (hence historical) approach to philosophy.

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Kant is an ahistorical thinker who suggests the problems of philosophy can be dealt with decisively in a theory that will never later need to be revised, and that is independent of the history of philosophy. Hegel thinks he as well as Kant, Fichte, and Schelling all belong to a single ongoing tradition in which later thinkers build on their predecessors in striving to realize the spirit of the critical philosophy. He relies on this criterion in criticizing Kant, Fichte, Schelling and Reinhold. Many observers—including Kant—consider the transcendental deduction as the centerpiece of the critical philosophy, its single most important component. Kant thinks the deduction of the categories is an effective bulwark against dogmatism. Hegel holds that Kant failed at this task, which is only finally carried out by Fichte. Hegel believes the critical philosophy has not left dogmatism behind, and that it fails to go beyond precritical philosophy. He thinks Kant's view is not itself critical, but merely another form of dogmatism.

It has been noted more than once that Schelling initially posed as Fichte's devoted disciple, but broke with him in publishing the *System of Transcendental Idealism*. In the *Differenzschrift* (1801), which appeared only a year later, Hegel formulates detailed criticism of Fichte, in part from Schelling's vantage point. Fichte advances a dualism between "is" and "ought," between what is (or theoretical knowledge) and what ought to be (or practical knowledge). Hegel criticizes Fichte, whose dualism he rejects for failing to bring together what is and what ought to be.

Hegel distantly—but resolutely and with great insight—follows Kant down the constructivist path. Kant's Copernican turn points to the constructivist concept of identity in difference Hegel adopts as his criterion to evaluate the views of Fichte and Schelling. His exposition of Fichte's system centers on the Jena *Wissenschaftslehre*. Hegel treats this text as profound speculation by virtue of its supposed reawakening of reason after Kant. According to Hegel, Kant incorrectly prides himself on his supposedly misunderstood *Critique of Pure Reason*. The supposed misunderstanding of the critical philosophy—for instance, in the notorious Garve-Feder review—was an important factor in Kant's composition of the *Prolegomena*. Hegel thinks Kant—and following him, Fichte—correctly invoke speculation, though both fall below this criterion. Kant invokes but does not exhibit genuine speculation, since he does not deduce the **(p.95)** categories. Fichte points toward but fails to establish cognitive identity. He fails Kant's constructivist epistemic test, hence fails to explain cognition based on experience. Since Fichte advances but fails to complete the critical philosophy, this task remains as the central item on the philosophical agenda.

### Hegel on the Difference between Fichte and Schelling

Hegel's account of Fichte focuses on the three fundamental principles identified in the Jena *Wissenschaftslehre*. For Hegel and perhaps for Fichte as well, the cognitive die is already cast at the very beginning of the latter's exposition of his system. Fichte explains his position as the result of thinking through the systematic development of the critical philosophy: "Now, the essence of the *critical* philosophy consists in this, that an absolute self is postulated as wholly unconditioned and incapable of determination by any higher thing; and if this philosophy is derived in due order from the above principle, it becomes a *Science of Knowledge*" (SK, 119; p. 117). Fichte's inversion of the Kantian subject transforms it from the crowning element in the system to the initial concept from which the entire position must be deduced. Yet according to Hegel, even if we grant Fichte's initial proposition (or his absolute primary principle), his position fails.

Hegel's analysis of Fichte's position is every bit as complex as the position. Even at this early stage, he criticizes other positions immanently, in this case, in following the complicated meanders of Fichte's thought. Hegel reads Fichte as carrying Kant's constructivist approach to cognition beyond the critical philosophy. According to Hegel, Fichte's position is based on the following factors: intellectual intuition; and *ego* = *ego*, where the ego is the identity of subject and object, and where the absolute is subject/object. Hegel praises Fichte's approach to experience in pointing out that in ordinary consciousness, the ego occurs in the form of an opposition (*Entgegensetzung*), which must be explained. According to Hegel, to explain opposition means to show that empirical consciousness is grounded in pure consciousness, in which case, the opposition is sublated through the identity of pure and empirical consciousness. In the latter instance, nothing empirical is undetermined. In other words, pure consciousness is not determined empirically. Hence an absolute identity subsuming the apparent dichotomy between pure and empirical consciousness would be impossible.

According to Hegel, philosophy—which posits the objective totality of empirical knowledge as identical with pure self-consciousness (*D*, p. 121)—needs **(p.96)** to demonstrate an identity between empirical consciousness and pure consciousness. The identity in question is not an abstraction from an original opposition; rather, “their opposition is an abstraction from their original identity” (*D*, p. 212). Hence, objectivity must emerge as it were from the subject, or ego. Yet since the subject, or ego, is both subject and object, empirical consciousness cannot arise from pure consciousness. Hegel summarizes his reading of Fichte in calling attention to a necessary identity (to which, Hegel claims, Kant, Fichte, and Hegel are committed, but which the Fichtean system does not demonstrate): “In other words, Ego = Ego is the absolute principle of speculation, but the system does not display this identity” (*D*, p. 122). The difficulty consists in the fact that subject and object—subjective ego and objective ego—are not identical but in fact different. Since subject and object (or what posits and what is posited) fail to coincide, it follows that, as Hegel writes: “*Ego does not become objective to itself*” (*D*, p. 123).

Hegel transposes this argument to Fichte's three absolutely basic principles. The first absolutely basic principle is “absolute positing of the ego.” Since there are three such principles, none is absolute and each is relative. *Ego* = *ego*, or the first principle, is an absolute identity. Since it is merely one of three principles, its meaning is that pure consciousness is opposed to empirical consciousness—or again, philosophical reflection as opposed to ordinary reflection (*D*, p. 123). In other words, the subjective ego is *ego*, but the objective ego is *ego* + *non-ego*. It follows that objective ego and subjective ego are not identical, but different (*D*, p. 124).

At the beginning of the nineteenth century, the suspicion of dogmatism was regarded as exceedingly serious. We recall that Kant suggests he could have accepted Wolff's position if it had avoided dogmatism in examining the right to rely on principles before employing them (*CPR*, B xxxi, p. 117). Hegel is at pains to note Fichte is not a dogmatic idealist. In the contemporary debate, this point is raised in different ways by Kant as well as Reinhold. According to Hegel, dogmatic idealism by definition posits the subjective as the ground of the objective, and dogmatic realism posits the objective as the ground of the subjective. Fichte's effort to ingratiate himself with Kant was steadily resisted by the latter. In rejecting his cumbersome admirer, Kant suggested Fichte was not a critical but a dogmatic thinker; hence from the perspective of the critical philosophy, he was not a philosopher at all. According to Hegel, Reinhold fails to grasp that Fichte must “posit the difference of subject and object in Ego

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= Ego at the same time as their identity" (*D*, p. 127). In other words, Reinhold overlooks the speculative dimension of Fichte's idealism. (I come back to this theme below.)

**(p.97)** In criticizing Fichte, Hegel claims the ego fails to make itself objective to itself through theoretical activity, and hence fails to bring about the identity *ego = ego*. In other words, the object is in Hegel's words "Ego plus non-Ego" (*D*, p. 129). It follows that the suggested Fichtean transcendental deduction of an objective world fails to sublate the opposition between subjective philosophical reflection and empirical consciousness. The failure lies in the inability to demonstrate the identity that is the criterion of knowledge in all constructivist theories. According to Hegel, the identity in question in Fichte's third principle is merely superficial, hence inadequate for his purposes.

Hegel takes the principle of idealism to be "that the world is a product of the freedom of intelligence" (*D*, p. 130) and further claims that "philosophical reflection is an act of absolute freedom" (*D*, p. 130). This means that the subject is unlimited, or again limited only by itself. In order to satisfy this criterion, the objective world must be deduced in a so-called "act of freedom" (*D*, p. 131). Since Fichte is unable to demonstrate this result, identity, or *ego = ego*, is postulated only practically. That is, the ego ought to objectify itself through a causal relation to the new ego through what Fichte calls striving (*Streben*). Yet *ego = ego* in fact occurs only in the form of ego ought to equal ego (*D*, p. 132). According to Hegel, for Fichte, freedom is a negative lifting of restrictions whose clear manifestation is striving; that is, a principle of non-identity, but not a sublation of opposites (*D*, p. 133). And since striving can never realize its aim, progress—though infinite—never reaches its goal. Since it is not possible to surpass merely striving for a goal that is never reached, Hegel says, "Absolute identity is present only in the form of an opposite, namely as Idea" (*D*, p. 135). Or again: the result, which should be identity, or *ego = ego*, is rather non-identity, or that *ego = non-ego* (*D*, p. 138).

According to Hegel, Fichte fails to reach identity since he never overcomes a basic dualism between theory and practice, subjectivity and objectivity. This dualism results in a treatment of the objective from the perspective of the subjective, which is central to what Hegel calls subjective idealism.

Hegel's evaluation of Fichte's transcendental philosophy is nuanced, but his verdict about Fichte is clear. The latter begins with an initial identity that is immediately lost and cannot be reestablished since Fichte transforms it into a causal relation. In other words, Fichte abandons the principle of philosophical speculation—hence genuine identity—in favor of scientific causality, which is supposedly incapable of yielding the desired result. Hegel credits Fichte with adopting a purer form of Kant's authentic idealism as concerns the principle of the deduction of the categories. He accepts Fichte's charge that Kant does not deduce either the categories, or space and time (*SK*, p. 51). He specifically **(p.98)** praises Fichte here and later as the first to deduce the categories (see *EL*, §42). Yet according to Hegel, Fichte also betrays that principle in adopting a causal explanation of identity (or materialism) in place of genuine idealism. Hence Fichte, from Hegel's perspective, is inconsistent. In short, according to Hegel, Fichte is both an authentic speculative thinker—and in that sense a true Kantian—but also not speculative at all.

In the section ostensibly comparing Fichte and Schelling, there is little direct attention to Schelling, whose position is at this point presupposed. Everything happens as if Hegel's main concern were to work out the consequences of Schelling's effort to build on Fichte by carrying



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Schelling's version of German idealism beyond Schelling, hence in completing the line of thought running from Kant through Fichte to Schelling.

Hegel's comparative discussion of Fichte and Schelling is mainly an attack on the former from the perspective of the latter. The version of Schelling's position he has in mind is that expounded, for instance, in his controversy with Eschenmayer, in which Schelling clearly relates philosophy of nature to idealism as follows in a passage Hegel cites: "The philosophy of nature is a physical explanation of idealism" (*D*, p. 176). Hegel starkly contrasts Fichte's position with Schelling's, which exhibits the principle of identity throughout since "philosophy and system coincide" (*D*, p. 155). On this interpretation, Schelling's conception of identity realizes a version of the Spinozistic claim that thought and being are parallel to each other. According to Hegel, who faithfully expounds Schelling's position as the latter describes it, absolute identity requires that subject and object be posited as identical. "For absolute identity to be the principle of an entire system, it is necessary that both subject and object be posited as Subject-Object" (*D*, p. 155). Fichte's position demonstrates no more than a subjective subject-object, which further requires an objective subject-object. Both are further contained within the absolute, or the indifference point: "As their point of absolute indifference, the Absolute encloses both, gives birth to both, and is born of both" (*D*, p. 155). Hegel, who privileges identity over difference, insists that subject and object must both be sublated. But this is possible only if subject and object are posited as identical. This in turn requires the identity of subject and object as well as their difference. Hence, Hegel infers that "the Absolute itself is the identity of identity and non-identity" for the reason that, as he writes, "being opposed and being one are both together in it" (*D*, p. 156).

This statement identifies the full development of constructivism with Schelling's vision. It incorrectly suggests that in taking transcendental philosophy and philosophy of nature as equal, Schelling reaches the identity Kant **(p.99)** identifies and Fichte still only vainly strives for. This is incorrect in that Hegel, who praises Schelling (who has just consummated his break with Fichte), also simultaneously foreshadows his own later break with his sometime patron.

Hegel immediately turns to the point that will later separate him from Schelling in underlining a crucial difference in the understanding of the "absolute." Hegel takes this difficult term to refer inter alia to a structured whole. In the *Phenomenology*, he emphasizes this point in rejecting so-called empty formalism, such as the statement  $A = A$ , which occurs often in Fichte but perhaps refers to Schelling as well. In a famous passage—which Schelling took, probably correctly, as referring to his position, and which immediately led to a definitive break between them—Hegel rejects efforts "to pass off ... [the] *absolute* as the night in which, as one says, all cows are black [which] is an utterly vacuous naiveté in cognition."<sup>4</sup> In the *Differenzschrift*, in a period in which he is still close to Schelling, he makes the same point in a less abrasive way in saying that "the claims of separation must be admitted just as much as those of identity" (*D*, p. 156).

Hegel devotes more space to Schelling's philosophy of nature. In generally following Schelling, whom he does not name, Hegel claims that real opposition leads to two different but noncontradictory sciences. Their opposition is sublated in a higher standpoint that acknowledges the same absolute in each of them, in other words in transcendental philosophy and the philosophy of nature (*D*, p. 161). In the section on Fichte, the latter's transcendental deduction of nature is said to consist of being posited by the subject as a condition of its self-limitation (*D*, p. 136). According to Hegel—who clearly has Schelling in mind—in Fichte's

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superficial view, which explains nothing, nature is no more than an “ideal result” (*D*, p. 139). Yet Fichte is an easy target, since alone among the great German idealists he was not versed in contemporary science.

In this context, Hegel turns rapidly to Kant’s view of nature to which he gives only short shrift. The main point seems to be that the scientific construction of nature demands that it be not only matter, but also subject-object (*D*, p. 164). These cursory references—which in Kant’s case simply fail to take the position seriously—have the effect of supporting the Schellingian claim, as well as denying the Fichtean counterclaim, that neither science can sublate the other.

Hegel enlarges on this insight by suggesting that the principle of transcendental philosophy is the subjective subject-object and the principle of philosophy of nature is the objective subject-object (*D*, p. 166). According to Hegel, each system contains both freedom and necessity (*D*, p. 167). This reasoning leads to the obscure suggestion that the “science of nature is the **(p.100)** *theoretical part* of philosophy and the science of intelligence its *practical part*” (*D*, p. 168).

Hegel takes stock of his claim by stating that in transcendental philosophy the absolute assumes subjective form as cognition, and in the philosophy of nature it is objective as being (*D*, p. 169). He contrasts these two sciences as in fact opposed, but also as forming a single whole. Hegel, who darkly says that the whole can be regarded as “a self-construction [Selbstkonstruktion] of the absolute” (*D*, p. 170), appeals here to a series of obscure metaphors to communicate this obscure view. They include Schelling’s “lightning stroke of the ideal upon the real” (*D*, p. 170), the “intuition of God’s eternal human Incarnation” (*D*, p. 171), and so on. Hegel appears to be obscurely restating the importance of speculation. This is a view, according to Hegel, that is central to Kant, Fichte, Schelling, and Hegel, specifically including Schelling’s effort to supplement Fichte’s transcendental philosophy. The central insight is that knowledge requires a speculative approach; this approach reaches its highest level in the unity of transcendental philosophy and philosophy of nature. “Speculation ... and its knowledge are at the point of indifference” (*D*, p. 172).

Hegel has so far criticized Fichte from Schelling’s perspective. One might infer that, at this early moment in his career, before he became prominent, Hegel—who was known as the time as Schelling’s older and perhaps intellectually less competent assistant—would be content to stay in Schelling’s shadow. In fact, Hegel, who only appears to follow Schelling closely, is even at the beginning of his career never more than distantly impressed by Schelling’s view. He later rejects the Schellingian philosophy of nature as mere ignorant speculation. (I come back to this below.) In the *Differenzschrift*, he criticizes both Fichte and Schelling in terms of the criterion of an articulated whole that is neither subjective nor objective, but further preserves opposition (or difference within unity). This criticism emerges in remarks on intellectual intuition in the final paragraph of this section.

According to Hegel, intellectual intuition is the absolute principle of philosophy for both Fichte and Schelling (*D*, p. 173). This claim justifies Hegel’s view that Fichte and Schelling supposedly differ about a shared Kantian view—in short, within a single shared commitment that each interprets differently. Fichte’s subjective idealism is unacceptable since intellectual intuition, which is neither subjective nor objective, but rather, absolute—must abstract from the subjective aspect. Yet it is also not sufficient to supplement transcendental philosophy through philosophy of nature, or ego through nature. An acceptable view—the one to which Hegel in his initial philosophical text is already committed, but which he has not yet worked out—rejects both Fichte’s **(p.101)** and Schelling’s views in favor of a structure preserving difference within

identity, or the identity of identity and difference, or again the basic insight of the Copernican revolution. “Philosophical reflection posits these products of pure reflection in the Absolute in their abiding opposition” (*D*, p. 174). In short, in his initial philosophical text, Hegel is already concerned with realizing Kant’s Copernican turn as the central theme in German idealism, or the single ongoing philosophical tradition englobing Kant, Fichte, Schelling, and himself, all of whom are concerned with this same basic task.

### Hegel on Reinhold’s Founding-and-Grounding Tendency

Hegel’s remarks on Reinhold here are harsh but important for understanding his own emerging position. They echo recent remarks about Reinhold by Schelling, who was still Hegel’s patron at the time he wrote the *Differenzschrift*, expressing extreme distrust of the former.<sup>5</sup> It is only later when he comes back to Reinhold early in the *Science of Logic* that Hegel is able to take a more measured approach. I come back to this point below.

In the *Differenzschrift*, Hegel reacts to Reinhold on two levels: as concerns the relation of philosophy to the history of philosophy, and as concerns the kind of philosophical theory possible in building on the history of philosophy. He rejects Reinhold’s interest in so-called “personal idiosyncrasy”—or again, “personal views” (*D*, p. 87)—as incompatible with philosophy. According to Hegel, Reinhold, who misunderstands his contemporaries, also misunderstands how to build on their positions.

Hegel, following Kant, Fichte and Schelling, is a cognitive anti-foundationalist. He is especially critical of Reinhold’s cognitive foundationalism, which functions as the central thrust of the latter’s effort to reformulate the critical philosophy. Reinhold, following Bardili, transforms philosophy into logic through the so-called “founding and grounding tendency” (*D*, p. 179). The suggestion that claims to know must be based on logic anticipates the later logicist concern to base mathematics on logic. This approach later reemerges in different but related form as the view that philosophy must be based on the analysis of language.

Hegel’s discussion of Reinhold features a strong rejection of the latter’s Cartesian form of cognitive foundationalism as self-stultifying as well as an endorsement of the post-Kantian constructivist cognitive approach in all its forms as self-justifying. This theme has often been raised—for instance, by Plato, who thinks philosophy justifies itself and all other claims to know; Descartes, who **(p.102)** holds all claims to know must be grounded in an unshakeable initial principle; and Reinhold, who distantly follows the latter’s lead. Hegel’s attack on Reinhold, which distantly allies him with Plato, suggests that *pace* Reinhold philosophy has no need to be justified by anything other than itself. Hegel addresses this problem in an important passage, which deserves to be cited at length.

Science claims to found itself upon itself by positing each one of its parts absolutely, and thereby constituting identity and knowledge at the beginning and at every single point. As objective totality knowledge founds itself more effectively the more it grows, and its parts are only founded simultaneously with this whole of cognitions. Center and circle are so connected with each other that the first beginning of the circle is already a connection with the center, and the center is not completely a center unless the whole circle, with all of its connections, is completed: a whole that is as little in need of a particular handle to attach the founding to as the earth is in need of a particular handle to attach the force to

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that guides it around the sun and at the same time sustains it in the whole living manifold of its shapes (*D*, p. 180; cf. *D*, p. 111).

It will be useful—since Hegel later comes back to Reinhold in the *Science of Logic* three decades at the end of his career—to paraphrase this seminal passage very closely. Hegel here touches successively on cognitive identity, the relation of part and whole, the problem of the beginning point of a philosophical theory, and the analogy between cognition and the Newtonian explanation of Copernican astronomy. According to Hegel, a scientific (or speculative) approach to knowledge consists in what he here, following Fichte, calls positing by formulating a cognitive alternative to cognitive foundationalism. Modern cognitive foundationalism is often identified with Descartes. The French thinker, who relies on a geometrical model, bases cognitive claims on an initial principle known to be true and from which the remainder of the theory can be rigorously deduced. The Kantian approach to the deduction of the categories, which is intended as an a priori deduction of cognition, also functions as a form of foundationalism.<sup>6</sup>

In a foundationalist approach, for which any cognitive claim always comes too soon, it is impossible to begin. Hegel, who rejects the very idea of an (external) foundation, is not usually thought of as an epistemic foundationalist. Yet he does not reject epistemic justification. He specifically suggests science, or the scientific approach to cognition, founds or grounds itself. This suggestion removes any vestige of the seminal Kantian distinction between science and an analysis of its conditions in general. It is then no longer possible to distinguish, **(p.103)** as Kant distinguishes, between the road to cognition itself and an analysis of the general conditions of cognition prior to embarking on the road to cognition. Hegel believes any attempt to raise the question of the conditions of cognition must concede that we are always already on that road, hence unable to carry out this task. Hegel later develops these points in the introduction to the *Phenomenology*. (I come back to this theme below.)

The correspondence theory of truth is the natural consequence of the Parmenidean suggestion that cognition must demonstrate the identity of thought and being. Kant's Copernican insight restates the Parmenidean identity as the identity of identity and non-identity. Hegel takes this Kantian insight further in claiming that a scientific approach to cognition necessarily posits an identity, hence knowledge in the beginning and at every point of the cognitive process. As a so-called objective totality, the development of theory increasingly grounds or justifies its cognitive claims. This point appears to be straightforward, even noncontroversial. Copernican astronomy is, for instance, substantiated by later developments—above all, as Kant observes, through Newtonian mechanics that would not otherwise have been possible (*CPR*, B xxi, p. 113). The individual parts of the theory are justified, or grounded, through the formulation, development, and completion of the entire theory. Each of its parts refers at least implicitly to the entire, fully articulated theory. From Hegel's perspective, the initial stages of the Copernican shift from geocentrism to heliocentrism already point toward Newtonian mechanics.

In this passage, Hegel exploits an analogy between a theory and the solar system. A theory has a central point around which it revolves, and which is progressively justified in further working out the theory. The central point is justified fully only when the entire theory turning on it—and in which it is embedded, as it were—is fully worked out. To continue the analogy, the basic hypothesis underlying Copernican astronomy—i.e., that the sun is situated at the center of the solar system—is more fully constituted, so to speak, after Galileo and still more after Newton. Finally, as Hegel notes, philosophy, like natural science, needs no handle as it were, or no Archimedean lever. A cognitive foundation would function as a kind of handle or external

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support. Yet, to complete the analogy, Hegel observes cognition no more needs a handle than the earth requires one for the gravitational force that leads it around the sun. In other words, the cognitive process, which is self-justifying, does not require further justification or any form of cognitive foundation other than itself to justify its cognitive claims.

Hegel's conviction that philosophy is intrinsically circular is one of his earliest and deepest insights, preceding even his characteristic reliance on a **(p.104)** categorial (or more precisely, conceptual) approach to experience. This normative view is restated in different ways in later writings, including in the *Encyclopedia*, which is as close as he ever comes to presenting the "official" version of his position. Here he discusses his conception of philosophical science as by definition without presuppositions (*EL*, §1), hence circular, as well as his view of philosophy as a self-enclosing circle that closes in on itself, so to speak (*EL*, §15); or again, as a circle with no beginning that returns into itself (*EL*, §17).

Hegel rejects cognitive foundationalism as ordinarily understood by virtue of his conviction that philosophy is justifying or self-grounding. From Hegel's perspective, Reinhold's founding-and-grounding project is unnecessary as well as impossible. A project of founding philosophy in something external to it, such as logic, is in effect an infinite task that never arrives at either knowledge or philosophy. In that case, as Hegel says, "making the run up" would become its principal task (see *D*, p. 180). It is, in this sense, like Lessing's famous ditch: leading from historical facts to religious truths over which it is finally never possible to pass.<sup>7</sup> According to Hegel, who presupposes his prior accounts of the views of Kant, Fichte, and Schelling, the alternative is "to connect cognition with the Absolute, so that it becomes an identity of subject and object" (*D*, p. 181).

Hegel thinks Reinhold's suggestion that we must antecedently presuppose the so-called arch-true (*Urwahre*) amounts to the view that the absolute is the arch-true. This is a conception of the absolute that is "not the work of Reason, because it is *already in and for itself* something true and certain, that is something cognized and known" (*D*, p. 184). Reinhold's difficulty lies in explaining how, if the absolute is independent—hence if it is not in some way constructed by reason—it can be reached through reason. Since Reinhold's absolute is not constructed in this way, and since reason does not have an active relation to it, the absolute lies outside of, or again beyond, reason. Hence it would be absurd to claim knowledge of it. In refuting Reinhold, Hegel—early in his philosophical career—refutes any form of the ongoing Parmenidean effort since early Greek philosophy to know an already constituted, but mind-independent reality.

### Fichte and Hegel's Turn to Phenomenology

Hegel, who was very critical of Reinhold, thought better of Fichte, who turned to phenomenology in the course of working through Kant's cognitive approach. It is plausible to infer that Fichte's turn to phenomenology influenced Hegel's own phenomenological turn.

**(p.105)** The term "phenomenology," which became very popular in the twentieth century through the writings of Husserl and his students, is so widely and imprecisely used that it is difficult to define. Contemporary phenomenologists seem to understand the core concept in different ways. It is unclear there is any central insight linking together, say, Husserl, Heidegger (who substitutes phenomenological ontology for the latter's phenomenological epistemology), Merleau-Ponty (who is influenced by them both), Scheler, Sartre, Ricoeur, Henry, Levinas, and so on.

In German idealism, “phenomenology” is related to Kant’s influential distinction between noumena and phenomena. This term does not appear in either Fichte’s initial version of the *Wissenschaftslehre* or, to the best of my knowledge, in his other Jena writings. Yet this concept, though not under that name, is arguably important in this text. Fichte’s turn toward phenomenology derives from his turn away from the thing in itself, hence away from Kantian representationalism, toward his own post-Kantian form of constructivism. Fichte’s turn toward constructivism is a turn toward phenomenology, even before he uses the term. He is throughout committed to explanation of cognition through the activity of the subject—hence from the subject pole—and not from the object pole through the causal activity of the object on the subject.<sup>8</sup> Yet his so-called deduction is misnamed, since Kantian representation presupposes a mind-independent object, which Fichte, in giving up the thing in itself, abandons as an explanatory concept.

In writings after the Jena period, Fichte continues to move in a phenomenological direction in developing his version of the constructivist approach to cognition. Certain features of the new method Fichte experiments with in 1800–1801 (and which were incorporated in the 1801–1802 *Darstellung*, such as the terms “*Konstruktion*” and “*Nachkonstruktion*”) become distinctive features of later attempts to characterize the activity of the transcendental philosopher.<sup>9</sup>

In the 1804 *Wissenschaftslehre*—which was not published during Hegel’s lifetime, and hence probably did not influence his position—Fichte reworks the Kantian distinction between false appearance and true appearance. According to his son and editor, Fichte entitled the second part of his 1804 *Wissenschaftslehre* “*Erscheinungs-und Scheinlehre*.”<sup>10</sup> At the beginning of the second set of lectures, Fichte announces his intention to argue for the intrinsic unity of being and thinking. Yet he continues to subordinate this view to faith while explicitly adding a phenomenological dimension. The tenth lecture provides a short overview of Fichte’s view of the science of knowing (*Wissenschaftslehre*) at this point. This science, which turns on consciousness, is **(p.106)** both “a doctrine of truth and reason” as well as “a *phenomenology*, a doctrine of appearance [*Erscheinungslehre*] and illusion [*Schein*].”<sup>11</sup> According to Fichte, phenomenology is a theory of true appearance and false appearance, which he understands as a “theory of reason *and* of truth” (*WL*, pp. 150–151). Unlike Lambert and the early Kant, for whom phenomenology concerns false appearance, Fichte uses the term here in a positive sense.<sup>12</sup> In obviously anticipating Hegel, he defines phenomenology as the science of true appearing (*Erscheinungslehre*). For Fichte, true appearing (*Erscheinen*) is never mere illusion (*Schein*). Truth is phenomenal, though phenomena neither are false, nor are false appearances, but are true. Fichte, who depicts phenomenology as a description of true appearing, here anticipates later efforts by Hegel and Husserl to understand philosophy as science of the phenomenological approach to truth.<sup>13</sup>

The phenomenological dimension of Hegel’s *Phenomenology* derives from contemporary influences, from his overall approach to cognition, and (like Fichte) from his rejection of representationalism. Representations are appearances (of an object or objects). Hegel follows Kant as well as Fichte in turning away from a representational, causal approach to cognition and toward an approach based on the activity of the subject. By rejecting a causal theory of knowledge, Hegel gives up the familiar causal model of perception. In its place, he substitutes the construction of epistemic (or cognitive) identity subtended by ontological difference. In the *Phenomenology*, Hegel works out this view already adumbrated in brief remarks on a circular approach to cognition in the *Differenzschrift*. Beginning in the latter work, Hegel steadfastly

holds to the criterion of knowledge as the identity in consciousness of subject and object, knower and known, emerging from a circular approach to cognition.

Hegel rejects the Kantian view of phenomenology as false appearance in favor of a revised Fichtean view of phenomena as true appearance. In this way he rehabilitates phenomenology—which Kant confines to false appearance, hence to mere appearance, as distinguished from truth. As a result, he transforms phenomenology—which in the *Critique of Pure Reason* Kant intends as a mere prolegomenous stage—into the main cognitive source. In the first *Critique*, the *Prolegomena*, and other writings, Kant distinguishes sharply between noumena and phenomena, between what is true but cannot appear, and what appears and is not true. In his reaction to Kant, Hegel “relativizes” the threefold distinction between what is false, what is mere appearance, and what is truth by calling attention to what appears on the way to truth. Mere falsity, which is not truth, is replaced with a conception of false appearance (*Schein*) **(p.107)** that, under the right circumstances, becomes true appearance (*Erscheinung*) or knowledge and, at the limit, truth.

### Hegel on Phenomenological Cognition

Hegel, who identifies representationalism with the critical philosophy, apparently does not perceive that Kant also features a noncausal, constructivist approach to cognition. In the introduction to the *Phenomenology*, he criticizes Kant while sketching a phenomenological alternative to a representational (or causal) theory of perception. He follows Fichte in abandoning any form of the effort—as old as the Western tradition—to grasp mind-independent reality in favor of grasping the phenomenal contents of consciousness.

Hegel rejects any form of the familiar view of a transcendent in favor of an immanent subject. In its place, he favors an experimental conception of cognition as arising within and indexed to a social and historical space. He limits cognitive claims to the experience of consciousness (or phenomena) roughly, as Fichte clearly says, to what is directly given to us when we open our eyes. Philosophy must explain the grounds of experience, which he describes as the system of representations (*Vorstellungen*) accompanied by a feeling of necessity. We do not and cannot know mind-independent objects as they are, since we know and can only know mind-dependent objects. In other words, Hegel—who does not reject realism—like Kant, espouses empirical realism in place of metaphysical realism.

The *Phenomenology* describes cognition as an intrinsically historical process with no preconditions, but unlike the Cartesian position, without an external foundation—without an Archimedean point. In the Introduction, Hegel argues for the construction of a subject/object identity within an ongoing historical process. Truth is a limited term, or mere idea, regulative but not constitutive. It is, as Putnam says, a mere “Grenzbegriff,”<sup>14</sup> which would be reached if and only if subject and object, knower and known, freedom and necessity coincided. Yet since Hegel does not think we have already reached or must ever reach the end of history, or a point where this occurs, there is no reason to think that he treats so-called epistemic closure (or successful fulfillment of the cognitive process) as constitutive, or more than regulative.

Hegel’s theory of knowledge presupposes a double distinction between subject and object. In the process of knowledge, the subject distinguishes itself from something within consciousness, to which it relates itself, and which it strives to cognize. The subject further distinguishes between

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what is for it—hence given in consciousness—and what (as independent of the subject) would (if it were grasped) constitute truth.<sup>15</sup>

**(p.108)** We do not evaluate claims to know absolutely, abstractly, theoretically, or a priori. We rather evaluate claims to know practically by comparing them to what is not potentially but in fact given in (ordinary) conscious experience. Hegel is often supposed to ignore “experience”; for instance, according to Marxism, in beginning in pure thought in order to descend to being.<sup>16</sup> The opposite is closer to the truth. Like Kant and Fichte, he rather takes experience seriously as the only possible source of cognition—in his case, since he believes knowledge emerges only in the form of a trial-and-error process within consciousness.

Following Kant’s Copernican turn, the Hegelian criterion of knowledge is identity in difference. Like Kant, Hegel rejects intellectual intuition in relying on cognition mediated by categories, or in Hegel’s case, concepts (*Begriffe*). Concepts are in effect theories formulated to grasp what is given in conscious experience. The relation between concepts (or theories about the contents of experience) and experience is intentionally circular. Concepts formulated on the basis of experience, on which they depend, and which they are intended to explain, influence the perception of the object, which in turn depends on the theory about it. It follows that the cognitive object is not independent of, but rather dependent on, the conceptual framework. According to Hegel, when we alter a theory in order to improve it, then the object of the theory, or what one seeks to know, also changes.<sup>17</sup> Hegel differs on this very important point from those who think the world is fixed and does not change, since only our theories about it change.<sup>18</sup> Such thinkers are often committed to some form of representationalism, or even direct realism.<sup>19</sup> We do not and cannot know the mind-independent world as it is. We know only that a theory is better or worse than alternative theories in grasping a cognitive object that changes as the theory about it changes. The cognitive object is literally “constructed” by us in the process of knowing. An elementary instance might be the difference between water and H<sub>2</sub>O, which as cognitive objects are both constructed by—hence depend on—the conceptual framework. More generally, what we know is never independent of, but rather always depends on, the frame of reference (or conceptual framework).

Cognitive theories arise out of and in response to experience, and are in turn tested through further experience. There are only two possible outcomes in such a test. Any theory formulated on the basis of experience either agrees with or fails the test of further experience, hence needs to be reformulated. If the theory agrees with experience, then subject and object correspond. If the theory fails the test of experience, then subject and object fail to correspond, pointing to the need to formulate another theory to explain experience. Hegel describes knowledge as emerging within a historical process in which **(p.109)** theories based on prior experience are tried out and, if they later fail the test of experience, reformulated. A series of experiences generates successive theories, as well as successive experiences on the epistemic road whose terminus ad quem is truth identified by the criterion of identity in difference. In holding that theories which in practice fail the test of experience must be modified, Hegel follows and is followed by anyone who takes an a posteriori approach to knowledge.

Hegel rehabilitates human reason by freeing it from the limits that Kant, who relies on the understanding, imposes in the critical philosophy. Hegel’s claim that, at least abstractly, “reason” is certain “that it is itself all reality”<sup>20</sup> derives from the Kantian view of the constructivist unity of thought and being lying at the heart of German idealism. Hegel links



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constructivism and idealism in claiming that what we mean by idealism is that reason is all reality.<sup>21</sup>

Hegel describes his phenomenological approach to cognition in the introduction to the *Phenomenology*. He presupposes this approach in his description of successive levels of knowledge leading to fully philosophical cognition, or absolute knowing (*absolutes Wissen*). He restricts cognitive claims to the contents of consciousness understood as mere phenomena, which do not refer beyond themselves to noumena. Hegel, who eschews dualism, grasps cognitive objects not outside of, but rather within, consciousness. At the dawn of the modern era, Montaigne and Descartes draw attention to subjectivity as the sole possible path to objectivity. Hegel follows Fichte in grasping objectivity from the perspective of the subject—in Hegel's case, through a distinction between subject and object, which are both situated within consciousness.<sup>22</sup> The cognitive process never knowingly compares a theory to a mind-independent object but rather compares a theory to what occurs on the level of conscious mind.

The Hegelian approach replaces (simple) “constatation” (from the French *constater*) by a cognitive process in which theories formulated on the basis of experience are tested, and hence validated or confirmed, or on the contrary, undermined or disconfirmed in a confrontation with further experience. Unlike Kant, Hegel is unconcerned to formulate an a priori theory of what must be the case. In place of an a priori approach to cognition, he rather describes everyday cognitive practice. Cognition arises within a conceptual process of conscious experience in which we do not and cannot cognize the mind-independent world.

In constructing phenomena, we literally “construct” our world. This point is not well understood. Sellars includes Hegel among those supposedly committed to what he calls “givenness.”<sup>23</sup> Since for Hegel cognitive objects depend on theories, arguably nothing in Hegel corresponds to givenness as **(p.110)** understood in Sellars's position. What we call the cognitive object—or again, the world—is never a mere given, but rather always depends on theories about the world in which the “world” is, so to speak, embedded. Claims to know are adjudicated through simple comparison between the concept of the object and the object of the concept within consciousness.<sup>24</sup> From the Hegelian perspective, talk about truth does not concern a mind-independent external object. Rather, it concerns phenomena in consciousness, which in turn function as the standard in terms of which to construct theories about truth.<sup>25</sup>

Hegel's conception of phenomena is paradoxical. Phenomena have a dual status both within and outside consciousness. They are within consciousness, where they depend on the construction of conceptual schemes (or theories) to cognize conscious experience. But they are outside consciousness in that theories are tested in confronting them to conscious experience, which either agrees or corresponds with, or fails to correspond with our theories about it. McDowell is correct to claim that Hegel always retains an external constraint.<sup>26</sup> Everyone is familiar with theories that, when confronted with experience, fail the test and must be reformulated. In the latter sense, what we seek to know acts as an external, empirical standard for theories about it.

Kant believes knowledge is independent of time and place. Yet it is rare, if ever, that we arrive at a result that we can reliably claim will never need to be modified. In most cases, the theory, or working concept of the cognitive object, can at least conceivably be refuted by further experience, which reveals a distinction between what, on the basis of our theory, we expect and

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what in practice we find. This is the case for kinds of epistemic investigation from astronomy to zoology, in which our conjectures can always fail the test of experience.

Sometimes a theory is provisionally adopted before more stringent tests are devised. This suggests that knowledge and truth correspond, or coincide, since our view of what is the case in fact correctly identifies the character of future experience. Though this need not ever occur, if it happened, the cognitive process would reach its end, or epistemic closure.<sup>27</sup>

A theory needs to be reformulated if there is a difference between what the theory suggests and what we find. Many observers, including empiricists of all kinds, insist on respecting the verdict of experience. Kant—who thinks it is possible to work out a theory of knowledge that is a priori, hence immune to experience—is an exception. The novel aspect in Hegel’s approach is his conviction that when we alter a theory on the basis of experience, then the cognitive object—which depends on the theoretical framework—is also altered. In effect, Hegel denies there is a single determinate way the mind-independent world is. Like Fichte, he rather believes that what we mean by **(p.111)** “world” depends on the theory about it. If cognitive objects depend on theories about them, then a change in the theory results in a change in the cognitive object. In other words, a new cognitive object, or new phenomenon, is literally “constructed” as a result of the change in the theory.<sup>28</sup>

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### Hegelian Constructivism and the *Phenomenology of Spirit*

Perhaps no one denies that aspects of the *Phenomenology*, above all the early chapters, concern cognition. Kant uses the Latin “*cognition*” and the German “*Erkenntnis*” to designate knowledge. Hegel’s “*Erkennen*,” which means “perception, seeing, differentiating, or noticing how something or someone is,” is a general term that embraces specific types of knowledge. It is based on “*kennen*,” roughly “knowledge by acquaintance,” and is closely related to “*anerkennen*,” roughly “recognition.” This terminological link is developed in Hegel’s account of self-consciousness through the struggle for recognition between master and slave (*Herrschaft und Knechtschaft*).

Hegel, for whom the truth is the whole, proceeds holistically. The *Phenomenology* advances a single, complex theory of knowledge running through different phases, from the most elementary form or forms of cognition (*Erkennen*) up to and including absolute knowing (*absolutes Wissen*). Hegel’s main interlocutor in the *Differenzschrift* and in later writings is always Kant. Yet the main influence in interpreting, criticizing, and simultaneously reformulating Kantian insights while formulating his own position is always Fichte. Fichte, who is always an original thinker and never merely a disciple, typically lets no opportunity pass to emphasize his fidelity to Kant. Hegel, who builds on Fichte, turns Fichte against Kant, and hence denies Fichte’s claim for the identity between his position and the critical philosophy.

It will suffice here to mention only three among the main ways in which Hegelian constructivism, under Fichte’s influence, differs from its Kantian predecessor. The differences include: a retreat from an apodictic a priori to an experimental a posteriori approach; the substitution of a mind-internal relation between concepts and cognitive objects for the familiar mind-external relation between subjects and objects; and the appeal to concepts, not categories.

Kant is an a priori and Hegel is an a posteriori thinker. Kant proposes a supposedly apodictic, hence incorrigible a priori cognitive theory. His approach could only possibly succeed if there were no more than a single set of identifiable cognitive conditions. In following Fichte, Hegel studies the real conditions of a systematic grasp of conscious experience. His approach succeeds if **(p.112)** he is able to identify the real conditions in which we cognize our surroundings and ourselves. With respect to Kant, Hegel can be said to replace the possibility of a “final,” hence inalterable, claim for cognition through an intrinsically experimental conceptual process in which any given cognitive claim is always at risk, as it were, always subject to being refuted and subsequently replaced through a better claim.

Second, Hegel gives up Kantian cognitive dualism in favor of cognitive monism. The familiar, dualistic, modern causal theory of perception approaches the cognitive problem through the relation between a cognitive subject and a mind-external cognitive object. The task of justifying cognitive claims about a mind-independent external object is restated but not basically altered in Kant’s cognitive approach. Following Fichte, Hegel transforms this theme by internalizing the relation between subject and object, knower and known, within consciousness. In the Hegelian model, the cognitive problem does not consist of supposedly knowing a mind-independent external object as it is independently of the subject, but rather consists of comparing and contrasting a concept or theory of the object with the object as it is given in consciousness.

A third difference concerns the nature of categories, which in the Kantian position are fixed, inalterable, through concepts, which are not fixed but alterable or variable. Though Kant and Fichte apparently use both “category” and “concept” indiscriminately, there is an important conceptual distinction at work. Hegel employs the latter term in a technical sense to refer to a

cognitive approach that goes beyond mere representation by directly capturing the appearing object. Discussions of Hegel either tend to avoid mentioning his view of concepts or point to the difficulty of specifying the precise range of meaning. According to *The Oxford Companion to Philosophy*, “concept” is a modern replacement for the older term “idea.”<sup>29</sup> Categories presuppose a dualism—more precisely, a difference between the cognitive subject and the mind-independent cognitive object—and hence are compatible with any form of the familiar representational approach to cognition. Concepts, which arise in a monistic perspective, point to the rejection of any dualism between subject and object, or mind and world, in favor of a distinction within consciousness between the concept (or theory of the object within consciousness) and the object within consciousness. (I come back to this point below.)

### Hegel on Philosophy of Nature and Cognition

It will be useful to test Hegel’s constructivist approach to cognition against his views of nature and logic. Hegel’s philosophy of nature requires discussion (**p.113**) in any study of German idealist cognition. Philosophy of nature was important around the turning of the nineteenth century. With the obvious exception of Fichte—who was not grounded in natural science—in different ways, the other German idealists are all interested in this theme.

Hegel’s views of nature have been controversial since their inception. His *Philosophy of Nature* immediately attracted controversy on publication. It was widely rejected in its own time as based on mere ignorance—for instance, by the biologist Schleiden in 1844<sup>30</sup>—and it was later lampooned. More recently, Hegel’s account of nature has been criticized by Popper (a dogged but uninformed and, as concerns Hegel, unsightful critic), in the context of a wide-ranging attack on supposed enemies of freedom;<sup>31</sup> and by Russell<sup>32</sup> on the basis of insufficient information about Hegel’s scientific views.

Hegel’s *Philosophy of Nature* stood out in the general rejection of idealism and romanticism after Hegel’s death. It later attained the unfortunate status of a negative paradigm during the second half of the nineteenth century.<sup>33</sup> Special ridicule was evoked by Hegel’s supposed a priori proof in the *Dissertation* that there was not and in fact simply could not be an eighth planet. Yet this is a mere straw man, since Hegel does not offer such a proof, either a priori or otherwise, in the *Dissertation* or elsewhere. Rather, he correctly claims there is no reason to believe there is a planet waiting to be discovered between Mars and Jupiter.<sup>34</sup> Later, in the *Philosophy of Nature*, he returns to this problem, which, as he notes, astronomers disdain but that he thinks is important. Here he indicates that although there is, as yet, no law concerning the series formed by the distances between the planets, he is optimistic that in the future this law will be discovered (see *PN*, p. 82).

Hegel’s *Philosophy of Nature* is doubly significant: from a purely historical perspective, by virtue of those influenced by it; in itself as a theory of the natural sciences; and as an illustration of his constructivist approach to cognition. It is clearly important in filling out the historical record. Hegel, who was unusually well informed, draws widely on a vast number of views of what was thought about natural science at the time. Petry lists some thirteen pages of references from Hegel’s text—surely an impressive list. This is especially impressive for someone who is widely still thought by those often not well versed on his position to be uninformed about contemporary science.<sup>35</sup> It is important in the present context as a test of the claim that his position is constructivist.

Hegel's view of *Naturphilosophie* is significant in different ways; for instance, because of the important thinkers known influenced by his conception of nature. According to Buchdahl, who is well acquainted with Hegel's (p.114) views of nature, a short list includes Gadamer, Findlay, Heidegger, Bosanquet, McTaggart, Croce, and Royce.<sup>36</sup> Hegel is often derided as a main example of someone who does not know enough about science to deserve to be taken seriously. Others, who know more about Hegel, are more tolerant and likely to be impressed by the unusual breadth of his erudition.<sup>37</sup> According to Petry, who has studied Hegel's views of science with care, Hegel's account of natural science is one of the most sophisticated and informed analyses we possess of the whole range of nineteenth-century science.<sup>38</sup>

Hegel's *Philosophy of Nature* is, like all his writings, difficult to interpret. Among the many difficulties is the sometimes nearly impenetrable quality of Hegel's language in this and other texts, the frequent inability to decide what Hegel has in mind, false legends about it that obstruct an accurate reading of the text, and so on. Despite recent attention to Hegel's conception of nature,<sup>39</sup> it is unclear that the debate is making progress. According to Stone, Hegel offers an a priori account of nature.<sup>40</sup> Yet this point, which cannot be demonstrated on textual grounds, would be clearly inconsistent with Hegel's consistently a posteriori approach to cognition throughout his writings.

Any approach to Hegel's *Philosophy of Nature* needs to observe a basic distinction between his account of the details of modern science (which obviously now needs to be brought up to date) and the overall intent of Hegel's theory (which, depending on the interpretation, is arguably as valid now as when it was initially formulated).<sup>41</sup> It is sometimes suggested that Hegel intends to present not a work based on observation or experience, but rather a work of philosophy in the tradition of Aristotle's *Physics*, Kant's *Metaphysical Foundations of Natural Science*, or perhaps even Plato's *Timaeus*—in short, an account of the ultimate conceptual structure of nature.

Though Hegel's *Philosophy of Nature* is eminently worth studying in itself, we will discuss it in the context of his constructivist approach to cognition. (Hence it will not be possible to mention recent efforts to argue for or against Hegel's treatment of specific examples, such as mechanics, chemistry, and so on.) Buchdahl, for instance, laments a curious paucity of attention Hegel directs to epistemic themes.<sup>42</sup> On the contrary, the epistemic theme is a central concern in this work, which illustrates Hegel's constructivist approach within the restricted sphere of the natural sciences in the early nineteenth century. In the *Phenomenology*, Hegel strikingly claims that substance becomes subject. He illustrates that perspective here specifically through an account of the natural sciences as they were known in his day.

If we judge by the *Encyclopedia of the Philosophical Sciences*, then—along with phenomenology and logic—philosophy of nature is one of Hegel's central (p.115) themes. In the *Differenzschrift*, Hegel generally supports Schelling's concern with philosophy of nature in brief but friendly remarks. After he published the *Phenomenology* and broke with Schelling, Hegel remained interested in philosophy of nature. That work contains a long passage on observing nature. In the *Encyclopedia*, Hegel devotes an entire volume to this theme. Hegel's intention is not to build on Schelling's approach to nature, which he here sharply rejects. In the *Phenomenology*, Hegel sharply criticizes Schelling's abstract conception of the absolute. In the *Philosophy of Nature*, he objects to Schelling's uninformed, superficial, formalistic approach to the philosophy of nature, to his mystical reliance on intuition, as well as to his "charlatanism," which, Hegel suggests, discredits the entire field of inquiry (see *PN*, p. 1). Hinman—who has

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devoted special attention to Schelling's philosophy of nature, but who never mentions Hegel—offers a similar view.<sup>43</sup>

Kant, Schelling and Hegel present rival conceptions of philosophy of nature. Kant argues for objective cognition in natural science through an a priori approach. Kant's philosophy of nature features a priori necessity, which Hegel reinterprets as necessity intrinsic to the concept. In the *Phenomenology* Hegel considers and rejects the Kantian a priori approach to knowledge in favor of an a posteriori approach based on the interaction between the knower and the known.

Kant elucidates the conditions of natural science in general; Hegel seeks to determine the real conditions of natural science as it exists. According to Hegel, we must grasp the idea as concrete, or in other words, as immanent (see *PN*, p. 4). His point seems to be that since reason is immanent, we do not import the idea into the phenomena; rather, we find it there. Hegel brings out this point by noting that physics starts from determinations internal to nature, which it considers in terms of its immanent necessity (see *PN*, p. 6). In other words, philosophy of nature consists in so-called "thinking consideration of nature," or consideration of general principles in terms of what Hegel calls the "immanent necessity" of the concept (*PN*, p. 7), which is possible since the idea is present "in the form of *otherness*" (*PN*, §247, p. 13).

This obscure formulation suggests not only that thought can know being—which is routinely presupposed in all forms of natural science—but also that philosophy of nature does so on a deeper level than is possible in the natural sciences. At stake is the form of constructivism Hegel formulates in the *Phenomenology* and applies here in his account of nature. The problem is posed in the following terms: "Nature has presented itself as the Idea in the form of *otherness*. Since therefore the Idea is the negative of itself, or is *external to itself*, Nature is not merely external in relation to this Idea (and to its subjective **(p.116)** existence Spirit); the truth is rather that *externality* constitutes the specific character in which Nature, as Nature, exists" (*PN*, §247, 13-14).

In a remark appended to the former paragraph, Hegel clearly says that philosophy—including philosophy of nature—is justified through conceptual necessity but must agree with empirical knowledge, which it presupposes. Hegel obviously thinks physics is abstract, but philosophy, which is concrete, restates abstract universals in conceptual form lying beyond physics. Metaphysics concerns universal or general "thought determinations." Both physics and philosophy of nature are metaphysical. The former is abstract and formal; but the latter, which is concrete, features an identity in difference, or the identity of itself and what is finite. In other words, philosophy of nature brings together the theoretical and the practical, or the abstract universal and sheer individuality.

It is helpful to consider his *Philosophy of Nature* in the context of the history of philosophy as well as contemporary philosophy of nature. In the present age of specialization, philosophical debate tends to be increasingly narrow. The very idea that a single individual can effectively embrace more than one highly focused theme is often taken as an indication that such a person has nothing to say.

Cosmological speculation about the universe is older than Western philosophy. Accounts of the emergence of Western philosophy in ancient Greece out of cosmological speculation typically treat natural science as an important theme within a wider perspective, which, as in our time, it has not yet usurped. This holistic perspective returns in Hegel's broad, very well-informed treatment of natural science in the context of his *Encyclopedia*. There it is one of three main

themes that, with logic and spirit, constitute the main axes of Hegel's encyclopedic treatment of the topic, as the title of the work suggests. When Hegel was active, his main rival among recent thinkers as an encyclopedic thinker was, of course, the dogmatist Wolff, and further afield it was certainly Aristotle. The difference—which is important—is that the latter, like Kant, made basic contributions to the science of his day (in Aristotle's case, biology; in Kant's case, astrophysics). Though Hegel studied natural science as it was known when he was active, he was never active in natural science. His contribution to this domain lies in thinking about its fundamental problems on the philosophical plane.

The general theme of philosophy of nature is certainly not new. In different ways, it is part of the ancient Greek holistic approach of including natural science within philosophy. In ancient philosophy, Plato, Aristotle, and others discuss the foundations of philosophy as science as well as natural science. Aristotle's empirical studies of biological phenomena decisively **(p.117)** influence his general philosophical standpoint. After Greek philosophy, the link between philosophy and science was often maintained, but philosophers were rarely directly active in the natural sciences. Increasing specialization, which arose after Kant, has—since the decline of German idealism, the rise of neo-Kantianism, and the emergence of analytic philosophy—become increasingly important. Generalists like Plato or Aristotle, Descartes and Leibniz, Kant and Hegel, and more recently Cassirer are now clearly frowned upon and increasingly rare.

The familiar distinction between philosophy, science, and philosophy of science as separate subdisciplines is relatively recent. At the time Hegel was writing, science and philosophy had not yet been clearly separated. They were clearly intertwined in Newton's *Principia*. They were still intertwined in the Leibniz-Clarke correspondence (1715–1716), which makes no distinction between technical problems of physics and the other sciences, or more general questions of metaphysics and theology. They are further intertwined in Kant's writings. And the term is still in use late in the nineteenth century.<sup>44</sup>

The contemporary distinction between natural science and philosophy of nature later became established for two reasons. First, there was the increasing disinterest of physicists in philosophy. Second, there was increasing philosophical interest in the distinction between philosophy and science; for instance, in modern philosophy of science. In German idealism, this difference is presupposed in philosophical accounts of modern science, which in Hegel becomes explicit.

Not only the views, but also the general orientations of Kant, Schelling, and Hegel toward nature are very dissimilar. Hegel's approach develops in relation to then-contemporary philosophy of nature, including among philosophers the great German idealists, and among scientists, above all, Newton. Other than the fact that Hegel constantly measures his position against Kant's, it is difficult to say how his approach to natural science relates to Kant's. Perhaps the safest thing to say is that the Kantian and Hegelian conceptions of nature are basically different.

In his mature period, Kant is consistently focused on formulating a general theory of the possibility of knowledge, including in modern natural science as it arose in the seventeenth century. He is not concerned, as Aristotle earlier was and Hegel later is with a biological model, which only reemerges in the second global scientific revolution. He is also uninterested in non-classical science, which begins to emerge only at the end of the nineteenth century.<sup>45</sup>

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Natural science for Kant, who was active before the emergence of modern biology or chemistry, mainly means physics. His model is Newtonian **(p.118)** mechanics. Kant's focus on justifying, or grounding, natural science through philosophy is a later version of the Platonic view that philosophy, which is self-grounding, grounds both mathematics and natural science. When Hegel was writing, modern biology was in the process of emerging, but modern psychology had not become a separate discipline. For Kant, natural science and cognition itself come to a peak and to an end in the critical philosophy. Hegel, on the contrary, provides a speculative account of what would now be called the fundamental principles or the basis of natural science. Since natural science is independent of philosophy, he thinks it can be understood but cannot be justified, grounded, or legitimated through philosophy—which, hence, cannot bring it to an end.

Kant came from astrophysics to philosophy, and he remained interested in physics, to which he contributed, throughout his career. Kant often appears to run natural philosophy and the philosophy of nature together. In the *Critique of the Power of Judgment*, he invokes teleology in discussing subjective purpose in aesthetic phenomena and objective purpose in respect to nature. In the *Metaphysical Foundations of Natural Science*—Kant's most important discussion of physics in the so-called critical period—it remains unclear if he is focusing on science, on philosophy of science, on both, or even on something else. Kant, who is a Newtonian, thinks natural science provides cognition of nature. He is centrally concerned with justifying the possibility of Newtonian science. He clearly thinks that in the work of Galileo and other seventeenth-century physicists, science has entered on a so-called secure path. He further believes that Newtonian mechanics has provided a definitive solution of the main problems of physics.

Kant and Hegel both employ a metaphysical approach to natural science, which they understand in basically different ways. In the *Metaphysical Foundations of Natural Science*, Kant is less concerned with speculating about the foundations of natural science than developing Newtonian mechanics beyond Newton. Kant's project in this book can be understood in different ways. According to Friedman, Kant is concerned here with integrating the extension of Newton's gravitational astronomy to cosmology and his own dynamic theory of matter<sup>46</sup> in a constructivist theory of nature. In Friedman's account, Kantian constructivism is unrelated to idealist metaphysics, but rather is central to Kant's effort to ground Newtonian mechanics.<sup>47</sup>

Kant's metaphysical approach to philosophy of nature is intended to present rational cognition from concepts. As applied to natural science, Kant insists, metaphysics "contains the pure actions of thought, and thus a priori concepts and principles, which first bring the manifold of empirical **(p.119)** representations [*sic*] into the law-governed connection through which it can become empirical cognition, [*sic*] that is, experience."<sup>48</sup> According to Kant, unlike the other sciences, metaphysics does not depend on the data of intuition.<sup>49</sup> Hegel, on the contrary, is concerned not with extending modern natural science; rather, he seeks to comprehend its basic concepts. He is especially concerned to distinguish between philosophy of nature and physics.

Since Fichte is neither knowledgeable about nor even interested in natural science, it is not surprising that his name does not appear in Hegel's *Philosophy of Nature*. Hegel's view of Schelling's conception of natural science evolves from a minimally favorable (or at least neutral) attitude in the *Differenzschrift* to a highly unfavorable view in the *Philosophy of Nature*. Schelling is not mentioned in the *Dissertation*, where Hegel focuses on a critique of Newton's theory of gravitation. In the *Differenzschrift*, Hegel takes Schelling's side of the dispute with Fichte about the need to supplement transcendental philosophy with philosophy of nature. In



short, he supports the view—implicit in the distinction between subjective idealism and objective idealism—that one needs to go beyond the subject to reach the objective world. Yet he does not support, but also does not criticize, Schelling's philosophy of nature. By the time Hegel wrote the *Philosophy of Nature*, he had already distanced himself from Schelling. Here he takes the opportunity to denounce the latter's conception of science, as mentioned, in unusually harsh terms.

Hegel notes early in the introduction that the view of philosophy as the basis of all further education is no longer held, and that because of recent very crude efforts—especially by Schelling—philosophy of nature is especially discredited. Hegel thinks we should reject all forms of charlatanism about philosophy of nature, but denies we should reject philosophy of nature.

According to Hegel, the philosophy of nature is rational physics, which is older than physics, and which was separated from physics in only modern times; for instance, in Wolff's distinction between cosmology and physics. Hegel, who contests this distinction, thinks Wolff provides a world metaphysics that is no more than a series of abstract categories in the understanding. Hegel holds that rational physics and physics are more closely related than usually thought. In the *Phenomenology*, he suggests art, philosophy, and religion overlap; art and religion represent what only philosophy knows. Hegel here makes a similar claim about physics and rational physics, which employ different perspectives. Physics regards itself as an empirical science, hence as intrinsically different from and opposed to philosophy of nature. Hegel believes this opposition disappears from the perspective of philosophy of nature, since he thinks physics and rational physics differ only through "the kind and **(p.120)** manner of their thought."<sup>50</sup> This suggests rational physics, or philosophy of nature understands physics, which misunderstands itself.

According to Hegel, to understand the concept of the philosophy of nature, we must first understand nature and only then work out the difference between physics and rational physics. His approach is intended to unite both theoretical and practical aspects. He draws attention to the distinction between nature (which is immediate and external) and human being (which correctly understands itself as an end) in pointing to finite teleology. Hegel, who notes that Aristotle was already interested in a teleological approach to the nature of things, extends this approach in remarking that the "true teleological method" consists in "regarding Nature as free in his own peculiar vital activity" (*PN*, §245, p. 6.).

Philosophy of nature and physics are two forms of the thinking consideration of nature. The difference between philosophy of nature and physics lies in the way they go to nature. Physics goes directly to nature to obtain universal knowledge, but philosophy of nature starts with "determinations external to nature" (*PN*, §246, p. 6), such as "mass," "force," and so on, which it scrutinizes and presupposes, and which must agree with empirical physics. The difference lies in the treatment of the phenomena. Physics is concerned with natural laws, but philosophy of nature is concerned with "immanent necessity in accordance with the self-determination of the concept" (*PN*, §246, p. 6, translation modified). The foundation or basis of science, hence physics, is conceptual necessity. He explains this point by suggesting that nature presents itself in the form of externality. Nature does not exhibit freedom, but rather shows only necessity or contingency. Hegel here is making two points: first, there is an idea in nature; second, since this idea is rational, it can be cognized.

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Hegel's assumption that all phenomena are intrinsically rational, hence can be grasped by reason, is one of his oldest conceptions. For instance, at the beginning of the third part of his *Dissertation*, which centers on planetary orbits, Hegel insists—in terminology he employs at the beginning of his career before he discovered the concept of spirit—that human reason can and in fact does grasp nature.<sup>51</sup> In the *Philosophy of Nature* he suggests nature forms a system or series of stages arising through the development of the immanent idea. Hegel, who considers various conceptual models, suggests that the concept develops through contradictions.

Hegel acknowledges two different kinds of cognition: empirical cognition derived from experience—which is central to natural science, above all physics; and a speculative conceptual framework exemplified throughout philosophy, including philosophy of nature. The empirical and the speculative **(p.121)** frameworks have different functions. The empirical framework emerges from and depends on experience. The speculative conceptual framework, which is Hegel's version of the Kantian transcendental deduction, subtends cognition of any and all experience—in this case, scientific cognition of nature.

Hegel's view of nature seems different from the theory he advances in the *Phenomenology*. The latter work features an experimental approach to cognition, understood as identity in difference, which in turn is based on the interaction between experience and an experientially derived, conceptual framework. In comparison to the critical philosophy—which advances indefeasible, a priori claims to know—Hegel proposes a more modest empirical approach.

This side of Hegel's position has often been overlooked in favor of Hegel's other, less restrained speculative approach to cognition. With reason, Hegel has often been understood as making stronger, less modest claims. This point is made in different ways. Those who know—or at least, should know—how difficult it is to say with certainty what Hegel intends in his texts are sometimes least hesitant in making definitive pronouncements. According to Findlay, Hegelianism in general—especially including the *Philosophy of Nature*—is “an essay in Absolute-theory, an attempt to frame the notion or to work out the logic of an Absolute, by which is to be understood something whose existence is both self-explanatory and all-explanatory, an inheritor, in short, of the religious conception of a God, as of the various materialisms, idealisms, spiritualisms, etc., whose objects have been given some of the notional ultimacy and uniqueness of a God.”<sup>52</sup>

Distantly following Kant, Hegel approaches nature in terms of a conception of necessity. Kant's philosophy of nature features a priori necessity, which Hegel reinterprets as necessity intrinsic to the concept. It will be convenient, in characterizing Hegel's *Philosophy of Nature*, to follow his accounts of the so-called notion or concept of knowledge of nature, and then on this basis the distinction between physics and philosophy of nature. Hegel begins in noting—perhaps with Newton in mind—that what is now called physics was earlier called philosophy of nature (*PN*, §246, p. 6). This approach has conceptual consideration of the universal or general (*Allgemeine*) as its object, which it studies through its own immanent conceptual necessity (*PN*, §246, 6). This obscure claim can be read as indicating that Hegel's treatment of nature focuses on the underlying conceptual framework. This in turn presupposes empirical knowledge of nature, and hence that theoretical knowledge is based on and “adjusts” to natural objects as given in experience. In broader terms, Hegel apparently believes philosophy—which begins but does not end in experience—transforms empirical, abstract results into a so-called **(p.122)** “intrinsically necessary whole”—that is, a unity based on concepts and subtending the merely apparent

“separability” of different things (*PN*, p. 10). In other words, philosophy differs from physics in that its concepts are not abstract or formal, but concrete, and hence grasp particularity.

Nature, for Hegel, is what he darkly calls “the Idea in the form of *otherness*,” (*PN*, §247, p. 14), which is the ideal, or concrete, realization of the idea. The difference at this level between philosophy of nature and physics is that the former contains a series of conceptual links, whereas the latter relies on physical laws. Hence, as he says, its conceptual treatment posits particularity (*PN*, §249, remark, p. 20). Hegel discerns a contradiction in nature in that the idea (or concept) is, as he puts it, external to it, and hence takes form in different ways according to conceptual necessity, and that there is sheer contingency in nature. It should not be lost in this purple prose that Hegel is not proposing to construe or to deduce nature from philosophy (see *PN*, §250, remark, p. 23).

Hegel now goes beyond the inorganic to consider organic nature, or nature itself, which “is, in itself, a living Whole” (*PN*, §251, p. 24). He seems to mean that the conceptual framework is a unified, self-developing entity that reaches its highest level in spirit. It is difficult to overlook the parallel between Kant’s view that human being is the highest point of nature and Hegel’s conviction that in spirit, *nature* reaches its truth, its final goal, and its so-called genuine actuality. In other words, Hegel understands conceptual development as teleological.

### Hegel's Critique of Newton

In view of the present focus on constructivism, it will not be possible to treat either Hegel's *Philosophy of Nature* or the surrounding debate in detail. It will be useful to attend to a notorious example—namely, Hegel's critique of Newtonian mechanics from the perspective of his constructivist approach. This critique runs throughout his writings as a consistent theme both early and late in signaling Hegel's effort to formulate his view of nature. It will be useful to examine this point briefly in the *Dissertation* where it is already visible, then later in more detail in the *Philosophy of Nature*, and finally (and more briefly) in the *History of Philosophy*.

Hegel's critique of Newton was unusual for the beginning of the nineteenth century. Newton's preeminent role in natural philosophy—his term for what is now called natural science—extends at least from the late-seventeenth to the early-twentieth century. For Kant, writing in the second half of the eighteenth century, Newtonian mechanics is the peak of modern science. He **(p.123)** strongly supports the Newtonian approach in various ways. As part of his a priori approach to cognition, Kant holds an anti-fallibilist conception of natural science. His remark that Newton has proven the Copernican hypothesis (noted above) suggests that modern natural science, which was earlier merely hypothetical, has in fact been demonstrated. This in turn suggests a view of natural science as unrevisable—a standard that has, in practice, never been reached. Kant's formulation of his version of the nebular hypothesis is further conducted along Newtonian lines. Though he rejects the Newtonian view of absolute space, and he acknowledges Newton's inability to explain attraction at a distance, he explicitly affirms the latter's universal theory of gravitation.

Hegel's critical reception of Newtonian mechanics is motivated by a number of issues. To begin with, there is the proper understanding of the relation of philosophy and science, which Newton regards as continuous but which Hegel distinguishes. When Hegel was active, this distinction was still emerging. A second point is the proper understanding of natural science. Hegel holds a fallibilist conception, which is incompatible both with Kant's apodictic, hence non-fallibilist or "infallibilist" conception as well as with Newton's suggestion that the laws of nature can be deduced from the phenomena. Hegel is further concerned with rethinking the role of philosophy with respect to natural science. He holds a version of the view familiar as early as Plato that science raises questions about itself it cannot answer but that call for philosophical elucidation. For instance, Hegel is concerned with the proper way to grasp the relation of natural science to logic and spirit, the two other main themes in the *Encyclopedia*. Finally, Hegel, who has strong historical interests, is also concerned with correcting the evaluation of the roles of Kepler and Newton in modern planetary astronomy.

Hegel's polemical attack on Newton merely continues the polemics surrounding Newtonian mechanics. Newton was, of course, no stranger to controversy. Everyone knows that Newton and Leibniz disputed the discovery of calculus. It is also well known that when the first book of Newton's *Principia* was presented at a meeting of the Royal Society in 1686, Robert Hooke accused him of plagiarism concerning the inverse square law. Hegel's critique of Newtonian mechanics—still the central scientific theory at the time he was writing—begins in the *Dissertation*, is developed in detail in the *Philosophy of Nature*, and is restated more briefly and in different form in the *Lectures on the History of Philosophy*.

Hegel's approach to natural science in general and Newton in particular is based on a critical attitude towards empiricism. Hegel criticizes an empiricist approach to cognition in different ways. In the *Phenomenology*, in the account **(p.124)** of sense certainty, he rejects the effort to go directly to experience, which is not the richest but rather the poorest form of knowledge. In

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the *Encyclopedia Logic*, in his account of three “Positions of Thought to Objectivity” (*EL*, §§37–60), he discusses empiricism (*EL*, §§37–39) before turning to the critical philosophy, which he examines as a form of empiricism. According to Hegel, empiricism, which arises to counter abstract metaphysics, intends to remain on the finite plane but unwittingly falls into metaphysics. This illusion is especially patent in so-called scientific empiricism: “The fundamental delusion in scientific empiricism is always that it uses the metaphysical categories of matter, force (not to mention those of the one, the many, universality, and infinity, etc.).... [It is] ignorant that in so doing it itself contains and pursues metaphysics and that it uses those categories and their relationships in a completely uncritical and unconscious fashion.” (*EL*, §38, p. 79).

There is a clear link in Hegel’s mind between philosophical and scientific empiricism. He points out that Hume—whom he takes as the high point of modern empiricism—bases his skepticism on taking the truth of the empirical as basic and distinguishing it from universal claims (see *EL*, §38, remark, p. 79; see also §47, pp. 50, 53). This same approach is patent in science as well. As concerns scientific metaphysics, Hegel’s most prominent target is obviously Newton, whom he regards as inconsistent. Like Kant, Hegel defends metaphysics. He notes that Newton, who enjoys a reputation in England as the greatest philosopher (*EL*, §7, p. 35), calls for banishing metaphysics but fails to heed his own advice (see *EL*, §98, addition, p. 155).

In the preface to the first edition of *Philosophiae Naturalis Principia Mathematica*, Newton proclaims his empiricism when he writes, “For the whole difficulty of philosophy appears to be to discover the forces of nature from the phenomena and then to demonstrate the other phenomena from these forces.”<sup>53</sup> Observers agree that in book 3 of the *Principia*, Newton claims to establish gravitation from planetary and lunar motion—in short, from Kepler’s work—and then from gravitation to explain the tides, the shape of the earth, the precessions of the equinoxes, and so on. It is plausible Newton conflates philosophy and physics in claiming to be doing philosophy when he is doing physics, in claiming to deduce the laws of nature from the phenomena when he in fact relies on mathematics,<sup>54</sup> and so on.

From Hegel’s perspective, Newton, who erroneously claims to be an empiricist, is doubly mistaken. First, he is not an empiricist since he does not rely on experience but in fact relies on mathematics. Second, empiricism is sufficient for physics, but insufficient for the thinking consideration of nature—the aim of philosophy of nature. In short, Hegel proposes that modern natural (p.125) science—which reaches a high point in Newtonian mechanics—arose by replacing a phenomenological approach worked out by Kepler through a causal approach based on the substitution of forces for Kepler’s laws. This account is in all points similar to Kant’s later claim that Newton proved the Copernican hypothesis.

Hegel’s *Dissertation*, which is entitled *De orbitis planetarum*, or more formally *Dissertatio Philosophica de Orbitis Planetarum* (*Philosophische Erörterung über die Planetenbahnen*), was written in Latin, as was the custom, and defended by Hegel in August 1801. It begins by calling attention to two basic questions: the conception of nature, and the distinction between physics (or natural philosophy) and philosophy of nature. Hegel is well aware that philosophy of nature goes back into the early tradition and continues up to the present. He remarks that (1) it is not a new science, since Aristotelian physics is far more philosophy than physics, and (2) it is only recently that Wolff—for Kant as well as Hegel, a dogmatic, precritical thinker—has separated philosophy from physics through an abstract metaphysics. According to Hegel, physics and

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philosophy of nature, which are closer than often realized, differ mainly in their particular kinds of the thinking apprehension of nature.

In general, Hegel raises two related complaints against Newton's approach to mechanics. First, he complains about the widespread misunderstanding of what Newton did and did not do, leading to an unjust preference for the latter's view over Kepler's. In short, Newton incorrectly claims to deduce the laws of planetary motion from experience, which Kepler in fact did. Second, Hegel thinks Newton conflates the a priori and the a posteriori, and depends more on a mathematical approach than on the empirical data by slighting the phenomena. Both complaints point to what Hegel thinks is a false comprehension of the proper approach to cognition based on a misunderstanding of the specific contribution of Newtonian mechanics. The first point concerns a mistaken estimate of Newton's accomplishment, which pretends to be a posteriori, since Newton famously claims he does not make hypotheses but is rather an a priori (or at least relatively a priori) thinker. In Hegel's eyes, Kepler's approach is a posteriori; but by virtue of the amount of mathematical results, what Kepler accomplished is not correctly appreciated.

As concerns experience, there is an analogy between Kant and Newton. Both claim to go beyond mere hypothesis—the former in pretending to deduce his principles from experience, and the latter in basing the claim for a priori cognition on experience. Kant, who insists that all knowledge begins in experience, claims to cognize from an a priori perspective. Yet he inconsistently takes experience into account. For instance, he consistently judges a given science **(p.126)** by its success—which he regards as the criterion of cognitive success—by adopting what appears to some observers as a confused form of pragmatism.<sup>55</sup> It is because logic and mathematics have not needed to take a step backward that he thinks these sciences are on a secure course. And it is because it has never been possible to find out something a priori about objects if cognition must conform to them, he thinks that we should try as an experiment the assumption that objects must conform to our cognition. Newton, on the contrary, claims to rely on experience but in fact relies on mathematics. Thus he denies that hypothesis has any place in what he calls experimental philosophy; he suggests that principles should be deduced from the phenomena, though he concedes that he is unable to do this for gravitation.<sup>56</sup>

Hegel—who defends an experimental approach to philosophy—is, like Kant, not an empiricist but also opposed to claims to go beyond the limits of the empirical. Hegel thinks a scientific theory can be constructed on the basis of experience, but not deduced from it. His objection—that Newton claims to deduce from experience what he rather deduces from mathematics—is unclear. Hegel might be objecting to the use of mathematics before clarifying the relation between mathematics and natural science. He might also be objecting to the application of mathematics, as the language of science, to nature. In the latter case, his objection would go to the heart of the rise of the new science through the successful mathematical representation of nature by Galileo and others.

Hegel points out it is no accident that Newton calls his famous work "Principles of Natural Philosophy." A theory constructed on the basis of experience can later be tested by confronting it with further experience. A theory that, like the critical philosophy, is deduced is not fallible but infallible, and cannot be justified through experience. Hegel, who thinks theories are not and cannot be deduced from experience, has two points in mind. First, Newton incorrectly describes his own procedure, which is only supposedly empirical. Second, the procedure he describes cannot in fact be applied to knowledge of experience.

Hegel's attack on Newton presupposes the rehabilitation of Kepler. The latter formulated his laws of planetary motion not—as Newton suggests—by deducing them, but rather by looking for ways to understand the available astronomical data. Kepler was apparently widely ignored by the founders of the new science, including Descartes and Galileo. Hegel thinks the celebration of Newton for proving the laws of planetary motion is a mistake. Since it is not possible to prove through experience what is in fact derived from mathematics, Newton did not prove the laws of nature. If the laws of nature are based on experience, they cannot be proven but only refuted in experience. Hegel (p.127) is especially concerned with the problematic relation between mathematics and physics, for what is the case in mathematics is not necessarily the case in physics. Since Kepler's approach, unlike Newton's, accords with correct procedure, Hegel thinks his accomplishment should be recognized.

In the opening lines of the first part of the *Dissertation*, in an important passage that deserves to be cited at length, Hegel writes:

Whoever approaches this part of physics soon realizes that it is rather a mechanics than a physics of the heavens and that astronomy's laws derive their origin from another science, from mathematics, rather than actually having been teased from nature or constructed by reason. Our great countryman Kepler, blessed with the gift of genius as he was, discovered the laws according to which the planets circulate in their orbits. Later, Newton was celebrated for proving these laws not from physical, but from geometrical grounds, and also, despite that, for integrating astronomy into physics....

What Newton did was to compare the magnitude of gravity shown by experience for bodies forming part of our earth with the magnitude of celestial motions; he then proceeded to deal with everything else using mathematical reasoning from geometry and calculus. We must be especially wary of this binding of physics with mathematics; we must beware of confusing pure mathematical grounds with physical ones; namely, of blindly taking lines deployed by geometry as helps to construction [*sic*] in proving its theorems for forces or force directions.... For when, in mathematics, geometry abstracts from time and is constituted solely on the principle of space, while arithmetic abstracts from space relying solely on the principle of time, then knowledge connections in the formal whole are clearly quite distinct from the actual relationships of nature, in which space and time are inseparably united.... For these reasons we may not mix that knowledge typical of the secure and formal manner of mathematics with physical relationships by attributing physical existence to what only has reality in mathematics.

Not only was Newton careful to call his famous text, in which he describes the laws of motion and gives examples of them from the world system, "mathematical principles of natural philosophy;" he also reminds us repeatedly that he uses the expressions "attraction," "impulse" and "propensity towards a centre" indiscriminately and interchangeably taking these forces not in the physical but only in the mathematical sense. The reader must not expect, then, on the basis of such terminology, to find definitions of the types and modes of action, causes, or physical grounds anywhere in Newton's work. Neither may he attribute true and physical forces to the centres, which are only mathematical (p.128) points, even when Newton speaks of forces strongly attracting to the centre or of these as central forces. Just what concept Newton had of physics is clear alone from his assertion that perhaps in purely physical terms instead of "attraction" it would have been more correct to say "impulse." We, however, maintain that "impulse"

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belongs in mechanics and not in the true physics.... It must be said, however, that if Newton really wants to work with mathematical relations then it is astonishing that he resorts to the term “force” at all, for the study of the magnitudes of phenomena belongs in mathematics, while that of force belongs in physics. Newton believed he had explained the relations of force everywhere, but all he in fact did was erect an edifice from a mixture of physics and mathematics making it hard to determine what belonged to physics and really moved it forward.<sup>57</sup>

In the *Philosophy of Nature*, Hegel again attacks Newton’s conception of gravitation. In the meantime, he has become acquainted with Goethe, who criticized Newton’s theory of colors in defending a rival view (which Hegel here also favors). In the *Philosophy of Nature*, Hegel considers and criticizes Newton’s views of gravitation and color separately. In remarks on absolute mechanics, he discusses universal gravitation by building on his earlier remarks in the *Dissertation*. In comparison, the later treatment of Newton is less detailed but more critical.

Though Hegel indicates that he has been studying Newtonian mechanics for some twenty-five years, his specific treatment of Newtonian mechanics in the *Philosophy of Nature* is brief (some two and a half pages)—and hence lacks the wealth of detail of the earlier analysis of Newtonianism. Then as now, mathematics—which has long enjoyed the reputation of the queen of the sciences—attracted attention through its supposed rigor, or as Hegel notes because of its quantitative aspect. Universal gravitation, which is mathematical, includes centripetal and centrifugal forces as well as gravitation and the body on which they act. Hegel stresses that gravity rests on the idea of the unity of these apparently different forces.

This brief remark is followed by an addition (*Zusatz*). Hegel here notes the solar system is composed of independent bodies, or planets, linked together through gravity in reference to a center. Hegel now points out that the difference between the planets is posited relative to the central body—in this case, the sun. The planets could be equidistant from the same center, in which case they would lack difference, but in fact they follow elliptical orbits in retaining their independence, which is Hegel’s way of saying the planets do not fall into the sun. One senses Hegel lacks an adequate language to describe the (p.129) solar system simply and accurately. He does better in quickly suggesting there are three motions: (1) mechanical motion communicated from the outside, or impetus; (2) the free motion of falling under the impulsion of gravity, or centripetal force; and (3) the unconditionally free motion of what Hegel calls the “great mechanics of the heavens” (his term for centrifugal force), which takes the form of a curve—more precisely, an ellipse.

This much is clear, though not necessarily cogent. Other comments are more problematic; for instance, the statement that “falling is an imperfect manifestation of gravity, and is therefore not real” (*PN*, pp. 64–65). Hegel goes on to deny that there are individual forces on the grounds that there is only one force. Though he states that the moments of force do not pull in different directions, this seems doubtful, and he provides no proof for his assertion.

In comparison with the focused, detailed treatment of gravitation in the *Dissertation*, this later treatment is neither focused nor specific. The central earlier complaint—that is, that Newton does not prove his theory of gravitation by deducing it from the phenomena, as he claims in the *Scholium*—is now wholly absent.



Hegel quickly turns to Kepler's laws, which he mentions rapidly, and to which he appends a remark of seventeen pages. He claims that Kepler, who relies on research conducted by Brahe, discovered empirically by induction the so-called laws of absolutely free motion, for which Newton is known—by inference, unjustly so—as the first to prove them. Hegel thinks Newton's main addition to Kepler's achievement is the so-called principle of perturbation, or deviation of planets from exact elliptical orbits because of the mutual attraction of bodies.

Hegel appears not to grasp the basic difference between Kepler and Newton. Kepler provides a phenomenological description of the phenomena, which Newton, who recasts Kepler's laws in mathematical form, quantifies within a causal framework. In substituting a causal analysis for a phenomenological description, Newton transforms astronomy along the lines of modern natural science. In that respect, Kepler—whom Hegel is concerned to defend—remains, like Brahe and Copernicus before him, a premodern figure, since his theory is inconsistent with the famous Galilean idea that the book of nature is written in mathematics. Many observers (for instance, Husserl) think this idea is normative for modern science, as it emerged in the seventeenth century. Hegel, who does not seem to grasp this point, describes the difference between the approaches of Kepler and Newton as “a mere difference of the mathematical formula” (*PN*, p. 67). He indicates as an argument for the priority of Kepler that Newton's formulae can be deduced from Kepler's laws.

**(p.130)** Hegel thinks Newton's dependence on a mathematical formulation is not innocent but leads directly to what he calls an “*unspeakable metaphysics*” (*PN*, p. 67). In disagreeing with Newton, Kant, of course, holds that natural science depends on metaphysics. Hegel, who rejects this view, believes natural science employs unclarified metaphysical categories based on mathematics, rather than thinking about the conception of the object. According to Kepler, the cubes of the mean distances of the planets are proportional to the squares of their periods of revolution ( $A^3/T^2$ ). Hegel, who describes this as one of the most beautiful of scientific laws, says that in formulating the universal law of gravitation, Newton simultaneously obscured Kepler's accomplishment when recasting it in mathematical form. Yet he concedes that Newton contributes by extending gravity to all celestial motion.

Hegel is very tough on Newton, whom he attacks for unfairly receiving credit for linking the planets to the sun—in short, for discovering universal gravitation. According to Hegel, not only Kepler but Copernicus already had this insight. He further objects that Newton proposes a mistaken proof based on infinitesimal calculus. Newton was, with Leibniz, one of the two main inventors of the calculus. At the time Hegel was writing, the calculus was still very new and there were still unresolved problems with understanding infinitesimals. Hegel's objection to this conception is rooted in discussion due to Berkeley and others.<sup>58</sup>

In the *Philosophy of Nature*, Hegel discusses Newton twice: once in the context of absolute mechanics, which is prior to physics; then once more in the context of the physics of the total individuality. Hegel's comments on Newton's theory of color reflect similar comments by his friend Goethe. In this context, Hegel—in abandoning all self-restraint—makes a series of unfortunate remarks about someone widely regarded as a scientific genius, but whom Hegel treats as if were feeble-minded. According to Hegel, with respect to color, Newton is inept and incorrect, guilty of bad character in reasoning, suffers from blind prejudice, manifests conceptual barbarism, and so on.

Interest in the nature and properties of light goes back to the ancient Greek and Indian traditions. We can summarize the situation prior to Goethe's intervention in the debate as follows. Descartes, who was one of the first to hold that light is a mechanical property of a luminous body, is a proponent of the wave theory of light. At the time, the wave theory was supported by Hooke, Euler, and many others. Before Newton, many partisans of the wave theory believed light was white but refracted into different colors of the spectrum by imperfections in the prism. In a famous experiment, Newton passed light through two prisms; as a result, it was decomposed and then recomposed. He **(p.131)** contended that since light was composed either of waves or corpuscles, and as a result of the experiment it could not be composed of waves, it must therefore be composed of corpuscles. According to Newton, each color has a specific angle of refraction. He maintained that light is composed of colored particles that, when combined, appear as white.

Newton and Goethe approach light very differently. Newton, who took a causal approach, was concerned with the theory of the visible spectrum. Goethe, who was widely known for his interest in plants and colors, published a book entitled *Theory of Colors* (*Zur Farbenlehre*) in 1810. Unlike Newton, Goethe was rather concerned with the phenomenon of color perception (or what might now be called, more generally, phenomenological description). He explicitly says the "[the] intention [of his research] is to portray rather than to understand."<sup>59</sup> Goethe, who studied the perception of light under different conditions, considered Newton's theory a special case. He criticized Newton's theory of colors in strong terms, since he thinks it was so important that it impeded free inquiry.<sup>60</sup> He further thinks it is not possible to write a history of color while Newton's theory still exists.<sup>61</sup> In refuting Newton, Goethe specifically denies any link between the phenomenon of color and mathematics.<sup>62</sup> He modestly suggests that his observations concerning the "primordial phenomenon" will provide raw material for philosophical discussion.<sup>63</sup>

Hegel—who knew Goethe personally—strongly defends Goethe's view against Newton's in the *Philosophy of Nature*. Goethe's view may have appealed to Hegel in that Goethe was more concerned to collect empirical data than to formulate an explicit theory, in leaving the latter task to the philosopher. It would be natural for Hegel to contact Goethe, since the theory of light plays an important role in Hegel's account of philosophy of nature. Hegel wrote to Goethe on February 24, 1821 to express his interest in the latter's conception of the *Urphänomenon*.<sup>64</sup> Goethe answered him on April 13 of the same year.

Goethe's view attracted interest at the time; someone else influenced by Goethe is Schopenhauer. The young Schopenhauer discussed with Goethe the latter's views of light. Schopenhauer published a volume entitled *On Vision and Colors* (*Über das Sehn und die Farben*) in 1816. The book, which he later reedited, was based on Goethe's substitution of three pairs of colors (red/green, orange/blue, yellow/violet) in place of the seven colors of Newton's spectrum. Following Aristotle, Schopenhauer believes colors arise out of a mixture of light and dark.

Goethe's *Theory of Colors* contains a violent polemic against Newton. Hegel must have read the book, from which he cites specific passages; he develops a similarly violent polemic against Newton in defense of Goethe in the **(p.132)** *Philosophy of Nature*. The comments about Newton's and Goethe's views of light occur in the context of a nearly six-page remark appended to an obscure account of the immaterial being-for-self of form developing into interior existence (PN, §320). In the remark, manifestly following Goethe, Hegel notes that abstract darkness is the opposite of light. Like Goethe, Hegel differentiates the process of darkening, its abstract

moments, and their empirical manifestations. He concedes there are difficulties while claiming that physics creates greater difficulties—and hence is less appropriate as an approach to color—by mixing together properties from different spheres. In following Goethe, he calls attention to the difference between specialized conditions and simple, general conditions revealing the archetypal phenomena (*Urphänomena*, from *Urphänomenon*) “in which the nature of color reveals itself to an unprejudiced intelligence.” (PN, p. 196). Hegel here takes Goethe’s side in rejecting Newton’s approach to color: “*The confusion attaching to a procedure, which makes such a show of precise and well-grounded experiment, while it is in fact crude and superficial, can only be countered by taking account of differences in the modes of origin of the phenomena: one must know what these differences are and one must keep them apart in their distinctive characters*” (PN, p. 196).

Hegel, who explicitly follows Goethe’s view of color, states a number of objections to Newton’s theory. According to Hegel, Newton’s theory of white light suggests it is composed of an indeterminate number of colors. We are meant to infer Newton’s visible spectrum cannot adequately represent visual experience. Further according to Hegel, Goethe has shown the “incompetence” of Newton’s observations in his famous two-prism experiment. To support his accusation, Hegel specifically notes that Newton overlooks the role of darkness as a so-called “active factor in producing dimness” (PN, p. 199). He also taxes Newton with blind prejudice in treating his theory of color as if it had a mathematical basis, since its measurements are false and measurement is irrelevant to color. In support of this claim, Hegel further cites the results of a series of contemporaneous application of differential calculus to the phenomena of light.

In a lengthy addition (almost seventeen pages), Hegel directly contrasts Newton’s and Goethe’s views of color in a series of detailed remarks, which depend on a precise grasp of Newton’s and Goethe’s published views. Nothing is to be gained here in following that discussion in detail. The main thrust is clearly to deny Newton’s theory in violent terms perhaps meant to “destroy” it in substituting for it Goethe’s view.

Hegel’s critical remarks in the *Dissertation* and in the *Philosophy of Nature* are very different. The comments in the *Dissertation* indicate that Newton (**p.133**) has not in fact carried out his claim to derive his gravitational theory from experience by implicitly suggesting that theories, which cannot be derived from experience, must rather emerge from it. This focus is replaced by a more diffuse attack on Newton’s theories of gravitation and color in the *Philosophy of Nature*. In the former case, the main point seems to be to call attention to Kepler’s accomplishment in deriving (but not deducing) his laws from experimental data. In the latter case, Hegel follows Goethe’s attack on Newton in suggesting the inadequacy of a mathematical treatment of color phenomena. This critique restates in specific form Hegel’s objection in the *Dissertation* that the relation between mathematics and phenomena needed to be clarified.

Hegel mentions Newton again, but more briefly, in the *Lectures on the History of Philosophy*, after his account of Puffendorf and before his account of Leibniz. Here he combines and condenses his remarks on Newton’s view of physics and color by now focusing more clearly on his central complaint: Newton, who famously claims to take an empiricist approach to natural science, mistakenly believes that he neither deals with nor require concepts. This approach would (if it were successful) simply obviate Hegel’s effort to revive philosophy of nature from a constructivist perspective. Hegel, who cites Newton’s anti-Kantian maxim—“Physics, beware of metaphysics”<sup>65</sup>—thinks physics cannot avoid metaphysics, which is the condition of progress (PN, §98, addition, p. 156). In this regard, Hegel formulates two more specific complaints. First,

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Newton restated physics in substituting the so-called laws of force (or gravitation) for the laws of phenomena, which Hegel earlier credits to Kepler. Second, Newton is bad at experimentation. Hegel's basic point is that Newton mistakenly thinks that natural science is conducted empirically. Yet by repositioning natural science on a gravitational basis, he is dealing not with the conclusions of empirical research but with concepts. Hence the complaint that Hegel directs against Newton is directed against his supposed empiricism. Though Newtonian empiricism was further extended by Locke, according to Hegel it supposedly misrepresents both the nature of Newton's contribution as well as of the conduct of physical science.

### Hegel on Dialectical Logic and Cognitive Constructivism

Hegel does not reject Newton's theory of gravitation. He rejects only the underlying theoretical paradigm on which it is based. Hegel's approach to natural science emerges not from the first volume of the *Encyclopedia*, but rather through a conception already adumbrated in the *Dissertation* and then later **(p.134)** worked out in the *Phenomenology*, the *Philosophy of Nature* and elsewhere. It follows that the Hegelian logical theory is at most consistent with—but not the basis of—views of natural science and cognition in general.

As in the preceding discussion, the remarks on Hegel's view of logic will be limited to selected aspects of the role of logic within his overall theory of cognition. The frequent identification of Hegel's logical theories with a single work is obviously unjustified since he formulates his logical views in two works that, though they overlap, depict logic slightly differently. The aim of the theories expounded in the two versions of the *Logic* can be described as an all-embracing categorical framework starting from an initial concept. This concept—which is not, as for Descartes, known to be true—constitutes the beginning point from which the remainder of the system can be derived: "For it is only the *whole* of philosophy which is knowledge of the universe as in itself that *one* organic totality which develops itself out of its own Concept and which, in its self-relating necessity, withdrawing into itself to form a whole, closes with itself to form *one* world of truth."<sup>66</sup>

The *Science of Logic*, also known as the greater *Logic*, is an independent work, which was published in two volumes (1812, 1813, 1816). It precedes the so-called lesser *Logic*, which appeared as the first part of the *Encyclopedia of the Philosophical Sciences* in three editions (1817, 1827, 1830). The first volume of the greater *Logic* comprises "The Objective Logic," whose two parts appeared in 1812 and 1813. The second volume, which contains "The Subjective Logic," appeared in 1816. Hegel finished a revision of the first volume of the greater *Logic* only a week before his untimely death (1831), which hence provides his latest logical views.

The two *Logics* are often studied separately, and then mainly with precedence given to the greater *Logic*. Though such an approach has its uses, it will not be followed here, where the focus is on the overall position. For our purposes, it will be useful, as much as possible, to read the two *Logics* together as separate statements—albeit from slightly different perspectives—of a single conception of logic, which Hegel expounds twice in separate works. In the present context, it will be useful to give preference to the so-called lesser *Logic* for two reasons: it was composed after the greater *Logic*, and in this later work, Hegel takes care to situate his view of logic with respect to the historical tradition.

The two works overlap but also differ in a number of ways. The greater *Logic* is comparatively more detailed, hence easier to grasp than the lesser *Logic*. The greater *Logic* also contains the very important chapter entitled “With What Must the Science Begin?” that is closely related to Hegel’s anti-foundationalism, **(p.135)** hence to his overall understanding of cognition. The lesser *Logic* differs from the greater *Logic* through its concision as well as its important account (in the description of the preliminary concept [*Vorbegriff*]) of the different positions of thought to objectivity, in which Hegel describes the main contemporary epistemic models as well as his reasons for rejecting them.

Hegel adumbrates his mature conception of logic as early as the *Differenzschrift* in remarks on speculative philosophy, categories, and identity. The conceptual die is already cast at the beginning of this text. We recall that Hegel here makes four related claims about the critical philosophy: though Kant’s attempt fails, his deduction of the categories is genuine idealism; its principle can be separated from the letter of Kantian theory; the Kantian categories are effectively lifeless; and “the principle of speculation is the identity of subject and object” (*D*, p. 80). Hegel follows Kant in evoking a philosophical system that (unlike his predecessor) he presumably bases on concepts, not on categories.

As an aid in reconstructing the link of logic to cognitive constructivism, it will be useful to focus on three main points: “The Attitudes of Thought to Objectivity”; dialectic; and cognitive foundationalism and circularity. In the *Encyclopedia Logic* (§25), Hegel links objectivity to objective thought and truth. Claims to know obviously require an account of the relation of the subject (or thinker) to what is variously described as the real, the cognitive object, objectivity, what is to be known, and so on. Hegel begins with a rapid account of the so-called preliminary concept before turning to analysis of only three positions or attitudes of thought to objectivity (*Stellungen des Denkens zur Objektivität*) taken from philosophical tradition. Since Hegel’s account is brief, many obvious questions go unanswered. It is, for instance, unclear if he thinks it is exhaustive, or representative of the most important cognitive approaches, or even representative of the most important current approaches. His rapid survey of other views suggests that—even on the traditionally arid level of logic—thought is not independent of, but rather dependent on, its historical moment.

Kant suggests that philosophy worthy of the name begins and ends with the critical philosophy. Hegel, who denies that claim, considers his own position to belong to an ongoing debate. He applies the same approach to the critical philosophy, to which, despite his sharply critical evaluation, he accords a crucial status. Hegel’s account of the three attitudes of thought to objectivity—roughly cognitive strategies—turns on the critical philosophy, which he treats as more important than either its predecessors or successors. Hegel identifies the three attitudes of thought to objectivity he discusses as pre-Kantian, Kantian, and post-Kantian philosophy. He further formulates the logical theory **(p.136)** that implicitly counts as a fourth and (in Hegel’s position) finally acceptable alternative. Hence, unlike Kantian transcendental logic—which is allegedly a priori, hence implicitly independent of all prior philosophy—Hegelian logic is explicitly dependent on the prior philosophical tradition.

### Attitudes of Thought to Objectivity

The first attitude is illustrated by prior, or dogmatic, metaphysics that Kant thinks prevailed before the critical philosophy and when he was active, and that arguably today is still widespread. It consists in the naïve belief—which asserts but does not know—that through sense perception the so-called abstract understanding can go directly to objects “as they really are.” Kant’s apparently neutral term “prior metaphysics” (neutral since it seemingly includes no value judgment) is intended to distinguish between earlier, arguably mistaken forms of metaphysics, which qualify as dogmatic since they do not feature the Kantian standard of failing to examine the conditions of their possibility, and his conception of the future science of metaphysics. Kant—who does not explicitly consider the views of, say, Aristotle, Thomas Aquinas, or other scholastic metaphysicians—mainly has in mind the so-called Leibniz-Wolffian philosophy, which supposedly reached a highpoint in Wolff.

Observers often think Kant was educated in the Leibniz-Wolffian philosophy, but later became its staunch enemy. He seems to reject the Leibniz-Wolffian perspective as essentially useless (see *CPR*, B 61, B 865). Kant thinks someone who merely learns a philosophical system, such as the Leibniz-Wolffian philosophy, has acquired historical cognition (*cognitio ex datis*) but not yet acquired rational cognition (*cognitio ex principiis*). He pointedly remarks that such a person is merely “a plaster cast of a living human being” (*CPR*, B 864, p. 693). Other observers believe Kant rejects Wolff but—despite critical remarks, for instance, about preestablished harmony—aligns himself with Leibniz.<sup>67</sup>

The many points of overlap between Kant and Wolff include: an interest in Leibniz, emphasis on the practical importance of philosophy, application of the mathematical method to philosophy, a strongly systematic approach, interest in the principle of sufficient reason, and so on. Kant rejects Wolff’s dogmatic approach, since he fails to criticize pure reason. Yet he admires his predecessor as the greatest of the dogmatic philosophers in virtue of his clear, well-grounded exposition “of the way in which the secure course of a science is to be taken” (*CPR*, B xxxvi, p. 120). This mild praise does not detract from Kant’s sharp rejection of Wolff’s approach. Kant, who believes **(p.137)** metaphysics must be a science in his rigorous sense of the term or nothing at all (see P 122), applies this same inflexible standard mercilessly to any and all forms of pre-critical philosophy, including the views of Wolff, scholastic metaphysics, and so on. “Critique stands to the ordinary school metaphysics precisely as *chemistry* stands to *alchemy*, or *astronomy* to the fortune-teller’s *astrology*” (P 117). Kant thinks a dogmatic metaphysical approach is incapable of providing apodictic proof, which alone meets the scientific criterion of critical philosophy.

Hegel’s evaluation of Kant resembles the latter’s judgment on Wolff. Hegel thinks Kant vastly overstates the difference between himself and his predecessors. He mistakenly believes the critical philosophy will soon be forgotten. This striking lack of generosity on the part of a thinker who consistently strives to find something of value in all his predecessors is inconsistent with his own attitude towards the history of philosophy. It contradicts his view, surely correct, that the critical philosophy is central to the further development of modern theory of cognition. Kant bases his case for the difference not in degree but in kind between the critical philosophy and its predecessors on its critical status, which supposedly breaks with all prior approaches to cognition. Hegel, on the contrary, consistently denies Kant’s claim to break with his predecessors in treating the critical philosophy as merely another form of dogmatism.

Here and elsewhere, Hegel specifically denies Kant's crucial claim to criticize reason before employing it. This amounts to denying that the critical philosophy is critical. In short, Hegel rejects Kantian claim for a difference in kind between the critical philosophy and pre-critical metaphysics. In the *Encyclopedia*, he compares the Kantian criterion of philosophical science to trying to learn to swim without going in the water (see *EL*, §10, Remark p. 38). Hegel believes dogmatic metaphysics, which uncritically considers thought determinations as the basic limitations of things (*Grundbestimmungen der Dinge*), or the predicates of truth (*Prädikate des Wahren*), neither begins nor ends with Kant. It is especially pervasive in pre-Kantian philosophy and in all forms of natural science. In our time, this attitude is widespread in the uncritical commitment to metaphysical realism. Despite Kant's intervention, the metaphysics of the past continues unaltered not only in Hegel's day but also in ours.

Pre-Kantian metaphysics uncritically assumes a basic isomorphism between thought and being in taking "the thought-determinations as the fundamental determinations of things" (*EL*, §28, p. 68). This amounts to uncritically assigning predicates to the absolute, Hegel's term for mind-independent reality. Hegel thinks the dogmatic metaphysical claim to grasp mind-independent reality, which has been on the agenda at least since Parmenides, runs directly **(p.138)** contrary to the critical philosophy, for which the real lies beyond cognition. Dogmatic metaphysics assumes without inquiry there is a fixed and unalterable categorial set adequate for any and all items of experience. Though he claims to be a critical thinker, Kant makes a similar assumption.

In reference to dogmatic metaphysics, Hegel seems to have in mind the Leibniz-Wolffian philosophy, especially Wolff, as well as the critical philosophy. This form of naïve realism applies equally well to Plato, Aristotle, and above all Descartes. In criticizing prior metaphysics Hegel does not distance himself from but rather aligns himself with Kant. Hegel, like Kant, adopts as his standard the Copernican revolution. Like the author of the critical philosophy, Hegel rejects all pre-Kantian theories of knowledge in which the relation of thought to objectivity is understood along traditional lines as a cognitive grasp of an already constituted mind-independent external object. The important difference is that for Hegel Kant also belongs to the amorphous category of uncritical metaphysics.

If a priori critique of the cognitive instrument is not possible, though Kant's intention is clear the significance of his opposition to prior metaphysics is unclear. This suggests two further points. First, it is probable that what Kant and following him most observers call his critical period is not discontinuous but rather continuous with his pre-critical period. In other words, it is difficult, perhaps not possible to sort out what is critical, or not yet fully critical, from what is dogmatic or still tainted with dogmatism in Kant. Second, despite Kant's testimony, the critical philosophy does not, in fact could not, break sharply with preceding forms of metaphysical thought.

Hegel rejects any claim to go directly to objectivity, or roughly what would now be called direct (or naïve) realism. In the chapter on sense certainty in the *Phenomenology*, he denies general predicates describe the object as experienced. He objects to the assumption that abstract predicates can provide an exhaustive description of an object given in consciousness. His rejection of abstract description counts against propositional or quasi-propositional approaches to knowledge, such as Aristotelian logic, which predicate qualities of a subject. This and similar approaches presuppose the cognitive object is always already fully constituted. Yet from a constructivist perspective the object for us, which is not present at the beginning, is only finally constituted at the end of the cognitive process. Further, this approach dogmatically assumes

that in the case of two opposing, mutually exclusive assertions, one is necessarily true and the other false (see *EL*, §32, p. 71). In this and in similar passages, Hegel presumably expresses his misgivings about what, since Aristotle, has become known as the law of excluded middle.

**(p.139)** According to Hegel, dogmatism is the contrary of skepticism. The ancients used the term “dogmatism” to refer to fixed systems. For Hegel, this term applies to the metaphysics of the understanding, which assumes fixed distinctions, as Hegel says a strong either/or as opposed to idealism, which assumes the principle of the whole (*Totalität*). Dogmatic metaphysics is divided into four parts, including ontology, rational psychology or pneumatology, and cosmology. Ontology refers to the abstract, enumerable characteristics of being. The second part concerns the rational nature of the soul, or spirit treated as if it were a thing (*Ding*), though, as Hegel notes, the latter concept is ambiguous. Hegel, who is deeply impressed by Aristotelian psychology, further distinguishes between rational and empirical psychology. Cosmology, the third part, includes such themes as the world, contingency, necessity and eternity, which it discusses as a series of binary oppositions. The fourth part, so-called natural or rational theology, relates to the concept or possibility as well as the proofs for and the properties of God.

From his inflexible maximalist perspective, Kant simply rejects prior views as dogmatic. He condemns, for instance, the Leibniz-Wolffian philosophy without reserve. Since he claims to invent philosophy worthy of the name, he further condemns any and all prior forms of metaphysics. Hegel’s historical perspective enables him to acknowledge the initial metaphysical stage as a milestone on the road toward an adequate metaphysics, as a step forward, which in turn makes possible further progress toward grasping objectivity through thought.

Hegel’s brief treatment of pre-Kantian metaphysics is important in itself and for the light it sheds on his understanding of the critical philosophy, which, in view of its importance as well as its importance for Hegel, is treated at greater length. His main point is that the abstract, naïve claim of earlier metaphysics to go directly to objectivity is indemonstrable. This point agrees in all respects with Kant’s view that earlier metaphysics is uncritical, unable to demonstrate its cognitive claims. Yet it rejects the Kantian distinction between a dogmatic and a critical philosophy on the grounds that critique, or an examination of pure reason prior to employing it, is not necessary but rather impossible.

Hegel subdivides the second attitude of thought to objectivity into empiricism and the critical philosophy. These are moments of a higher, still inadequate conceptual moment elicited (as well as made possible) by the earlier dogmatic metaphysics. The characteristic shared by both sub-forms is that the realm in which thought can legitimately pretend to cognize objectivity is no longer unrestricted but rather defined as coextensive with the realm of experience.

**(p.140)** Since empiricism has been mentioned above, we can go more quickly here. Hegel understands empiricism roughly as it is now understood, namely as an approach to knowledge that emerges wholly or at least mainly from sensory experience. Thus Locke, a central figure in modern empiricism, famously holds that, since there are no innate ideas, prior to experience the mind is a blank slate or *tabula rasa*. It follows that all knowledge is a posteriori, or derived from experience.

Empiricism, which goes all the way back to the ancient Greeks—Aristotle is on some accounts an empiricist—and runs throughout the entire Western tradition, exists in many different forms. Moore and Russell, the two central figures in the rise of analytic philosophy in England, were both empiricists, though of very different kinds. Logical empiricism was developed in the 1920s



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and early 1930s in Vienna in the circle around Schlick and in Berlin in the circle around Reichenbach.<sup>68</sup> Analytic philosophy, which arose against the background of classical British empiricism, later, roughly after the later Wittgenstein's attack on Moore's empiricism, launched a full-fledged critique of empiricism by Sellars, Quine, Davidson, Rorty, Putnam, McDowell and others. Hegel's critical account of empiricism, which is continuous with his critique of Newton's approach to natural science, suggests that in empiricism thought gives up the search for truth in favor of experience as its source (*EL*, §37). Though the goal of empiricism, as of all forms of philosophy, is objective cognition, Hegel regards it as a form of subjectivism.

Hegel typically stresses concreteness, which requires conceptual mediation, over abstract claims. According to Hegel, empiricism surpasses the prior metaphysics in responding to the need for concrete content, or intrinsic determinateness. In an approach to knowledge based on concrete content we know "the objects of consciousness as intrinsically determinate and as the unity of distinct characteristics" (*EL*, §37, p. 68). Hence empirical psychology replaces rational psychology, and empirical physics replaces rational physics. Empiricism relies on the principle that "what is true must exist in actuality and be there for perception (*EL*, §38, p. 79). Yet this principle is also a defect. Sensory perception, which is by definition individual, always falls below the level of experience. The process of knowledge does not end in but rather only begins with impermanent sensation in seeking what Hegel calls the general or universal and permanent in experience.

Hegel situates empiricism with regard to the prior metaphysics and the critical philosophy. Empiricism concerns the sensible, but the prior metaphysics concerns the supersensible. According to empiricism, since knowledge is restricted to sensory perception, the supersensible cannot be known. **(p.141)** Empiricism is allied with materialism, or the view that, though a mere abstraction, "matter as such counts as the truly objective" (*EL*, §38, remark, p. 81). We can note in passing that Berkeley, who is often criticized for his so-called "immaterialism," never uses this term.

Hegel, like Berkeley, does not deny that matter, which he takes to be a mere abstraction, which cannot be perceived, but which materialists take as the real objective world, in fact exists. According to Hegel, experience has two main elements: matter, or an infinite set of mere particulars, and form containing universality and necessity. One of Hegel's early publications concerns the difference between ancient and modern forms of skepticism.<sup>69</sup> Hegel, who follows Hume's modern skepticism, remarks that experience cannot lead to either universality or necessity.

Kant's view of the distinction between theory and practice is complex. Though over many years he worked to subordinate theory to practice, his theory of morality rather subordinates practice to theory. In his moral writings, he claims it is always possible to provide a universal principle governing any and all practical situations. The principle governing a specific action is a priori, but the situation in which one must choose a course of action is a posteriori. Kant simply assumes theory is always adequate to determine how to act in each and every practical case. It is reasonable to think there are always unanticipated new situations that fall outside the current state of theory—which is, hence, constantly confronted with problems it cannot resolve or adequately resolve. Kant implicitly denies this point. From the Kantian perspective, there is not and cannot be a practical situation for which there is no universalizable principle of action. In

other words, in Kant's position the recurrent moral question (what should I do?) always has a single definite response.

Kant's a priori view of morality presupposes but fails to demonstrate the subordination of practice to theory. He addresses this theme in the two introductions to the *Critique of Judgment* (1790). Later, in a semipopular text ("On the Common Saying: That May Be Correct in Theory, but It Is of No Use in Practice," 1793), he seems to reverse course by arguing, as he argues in his moral writings, that theory can be absorbed (or resorbed) into practice.

Kant's effort to subordinate practice to theory is quickly reversed by Fichte and further developed by Hegel. Hegel appeals to a Fichtean form of Kant's distinction between theory and practice. According to Hegel, empiricism makes a positive contribution since, unlike the "moral ought" (*Sollen*), the true must appear in reality and for perception. Yet this approach is doubly limited since thought remains abstract in limiting cognition merely to the finite to account for the existence and possible knowledge of the non-sensory. Hegel (p.142) here both follows as well as (implicitly) criticizes Kant. He accepts the Kantian view that generality (or universality) and necessity are hallmarks of knowledge in the full sense. Hence, it is correct to distinguish between content and form, to which universality and necessity belong. Yet if knowledge is drawn only from perception, then claims for universality and necessity are unjustified. Hegel, for this reason, criticizes Kant's refusal of claims for supersensible, non-sensory knowledge.

Except for several incidental references to Hume, Hegel does not illustrate his account of empiricism. The scope of his reference to an empirical approach to cognition is surprisingly limited, and perhaps inadequate for his purposes. In the *Lectures on the History of Philosophy*, Hegel rapidly describes individual empiricist positions with special emphasis on Locke. Surprisingly, neither Locke nor Berkeley—who belong on any short list of classical British empiricists—is mentioned at all in the *Encyclopedia*. Yet Hegel's discussion of empiricism helps to understand the empiricist approach of thought to objectivity in several ways.

One point concerns skepticism. Hegel follows Hume, Kant, and others in drawing attention to skepticism as the unavoidable result of empiricism. He at least implicitly follows Maimon in attributing skepticism to Kant. He discusses this point at length in the important article on skepticism from the Jena period. Hegel objects that Kant, who disqualifies reason from any cognitive role in favor of the understanding, draws the limits of knowledge too narrowly in excluding its genuine form.

Still within the compass of "The Second Attitude of Thought to Objectivity," Hegel turns to the critical philosophy. Hegel devotes only three sections to empiricism, but analyzes the critical philosophy—perhaps because it is crucial for his own position—in more detail in section 21. The degree of attention to Kant can be justified in various ways. The critical philosophy was centrally important; beginning with the *Differenzschrift*, Hegel constantly measures his position directly in terms of Kant's and indirectly through the reactions of Fichte and Schelling to Kant. Another reason is Hegel's obvious concern to build on the critical philosophy in formulating his own view. It is difficult to resist the impression that the rapid remarks on empiricism are intended to prepare his critique of Kant.

His account of the critical philosophy here closely resembles other accounts in the *Differenzschrift*, in *Faith and Knowledge*, and in the *Lectures on the History of Philosophy*. Since this is not a study of Hegel's view of Kant, it is not necessary to go into detail. Suffice it to say that Hegel's interpretation of Kant follows the latter's suggestion in the *Prolegomena* that the

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critical philosophy **(p.143)** centers on responding to Hume. Hegel as well as many of his contemporaries thought Kant failed to answer Hume and hence does not go beyond Humean skepticism.

Hegel begins in pointing to similarities and differences between empiricism and the critical philosophy. "Critical Philosophy has in common with Empiricism that it accepts experience as the only basis for our cognitions; but it will not let them count as truths, but only as cognitions of appearances" (*EL*, §40, p. 80). Hegel's view here resembles the contemporary views of Jacobi, Maimon, and Fichte, each of whom rejects the thing in itself. Hegel, who shares this perspective, thinks that despite enormous effort, Kant finally does not improve on Hume. Kant, who does not go beyond skepticism, only clarifies the contents of experience, or facts (from *Faktum*) in a different way. In other words, if the intent is to answer Hume by substituting knowledge for skepticism, then the critical philosophy fails.

Kant stresses objective cognition, but Hegel (as already noted) regards the critical philosophy as intrinsically subjective. According to Hegel, the critical philosophy widens the distinction between subjectivity and objectivity so that both fall within subjectivity and only the thing in itself remains within objectivity. Possibly following Hamann—one of the first to object to Kant's transcendental approach—Hegel notes that for Kant, thought investigates its own capacity for knowledge.

According to Hegel, who vastly underestimates Kant's philosophical importance, efforts to surpass the critical philosophy often fall short of it. "Nowadays, the Kantian philosophy has been left behind, and everybody wants to be at a point further on. To be further along, however, has a double meaning: both to be further ahead and to be further behind. Looked at in clear light, many of our philosophical endeavors are nothing but the method of the old metaphysics, an uncritical thinking along in a way everyone is capable of " (*EL*, §41, addition 1, p. 84). In this way, Hegel signals that he intends to surpass the critical philosophy.

The difficulty lies in bringing together the subjective and the objective dimensions, or what is given in experience and what (under the heading of the thing in itself) lies beyond it. In the critical philosophy, this requires constructing a unified cognitive object by bringing sensations under the categories (or concepts of the understanding [*Verstandesbegriffe*]), as well as space and time.

Kant cannot merely assume but needs to derive the categories. The latter are subjective unities of the understanding whose application transforms sheer perception (*Wahrnehmung*) into experience (*Erfahrung*). Kantian **(p.144)** categories—which are neither subjective nor objective, but rather conditions of objective cognition—cannot yield knowledge of the absolute (or mind-independent) real world, which lies beyond cognition. He interprets the categories subjectively, hence in a non-Kantian way. Subjective categories are incapable of objective knowledge, since they cannot function as determinations of the absolute, which is not given in perception. Hence, they do not yield knowledge of things in themselves, which Hegel—very much like Fichte, but in different words—describes in passing as a *caput mortuum*, or as a mere product of thought; in short, as a philosophical fiction (see *EL*, §44, p. 89). As in the *Differenzschrift*, he suggests that the critical philosophy is unable to reach knowledge of the absolute, which he takes as the cognitive criterion.

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This remark points to a difficulty in the Kantian version of cognitive constructivism. Kant relies on the understanding. Yet according to Hegel, we can become aware of the limited character of experiential knowledge (*Erfahrungskenntnisse*) only through reason, which is described as a capacity of the unlimited (*Vermögen des Unbedingten*). According to Hegel, the Kantian conception of objective knowledge requires cognition of an empty thing in itself (*leeres Ding-an-sich*). Hegel, who understands cognition as specifically grasping an object, interprets Kant as claiming that reason has at its disposal only categories incapable of knowing a transcendent object. An idea of reason, or unlimited cognitive object, is a necessary aim for which an object cannot be given in experience, hence cannot be known.<sup>70</sup>

In reviewing Kant's three ideas of reason (e.g., the soul, the world, and God) Hegel comes back to his view that Kant does not surpass but rather remains on the same level as Humean skepticism. According to Hegel, Kant goes no further than Hume's remark that universality and necessity are not encountered in perception. For Hume (and supposedly for Kant as well), empirical content and thought determinations are basically different. Hegel thinks Kant's effort to cognize the world leads to a series of antinomies. His solution consists in pointing out that contradictions do not lie in the object but rather in reason, which fails either to cognize objects or to grasp the dialectical moment of logical thought (see *EL*, §49, p. 96).

According to Hegel, Kant features a contradictory form of metaphysical realism. The contradiction lies in limiting cognition to experience while denying that reality can be either experienced or known. Hegel obscurely claims the contradiction rather lies in the object. This illustrates his rival view that cognitive claims are confined to the dialectical relation between a concept (in effect, a theory) of the object and the object of that theory. The supposed dialectical contradiction in the object is manifest in the cognitive process (**p.145**) between the theory about the object and the object, which are both situated within conscious experience.

God, the third object of reason, can be known through so-called rational limitation. For the understanding, limitation is negation but reality is limitless. God is the essence of all reality, but the content of limitation is only an abstract limitation or being. Reason has the task of uniting two opposing moments: abstract identity (or the concept) and being (or, as Hegel says, using the Kantian term "ideal," the ideal of reason; see *EL*, §49, p. 96).

According to Hegel, this (re-)unification can occur in two ways only: by proceeding from being (*Sein*) toward abstract thought (*Abstraktum des Denkens*) or conversely. Hegel's comments about this theme are doubly important for his reaction to Kant as well as for his own conception of logic. Hegel understands being as a fully articulated world (*erfüllte Welt*). One can only think being by stripping away everything contingent to grasp a necessary, self-developing object, or "to divest its form of individual and contingent [features] and to grasp it as a universal being, different from that first [fullness of being], to grasp it as necessary in and for itself, active and determining itself in accordance with universal purposes—in short, to grasp it as God" (*EL*, §50, p. 96).

Two points are important here. First, as Hegel indicates in the analysis of sense certainty in the *Phenomenology*, language is intrinsically general or universal. The particular or the contingent, which cannot be grasped through language, can be identified only ostensively. It follows that thought can grasp only generality or universality.

Hegel's terminology is clearly confusing. Here as elsewhere in his writings, Hegel intermingles religious language and an apparently secular cognitive approach. In the *Differenzschrift*, he refers to the cognitive object as the Absolute. Here he calls it God, or slightly later, substance. "Absolute," which is apparently unrelated to Christian religion, points to Hegel's commitment to cognitive holism, or the category of the whole. In short, Hegel rejects the Kantian theory of cognition based on the understanding in favor of his own rival view grounded in reason.

Second, Hegel points out that Kant attacks the conceptual transition from the empirical world to God. If Hegel is finally a secular thinker, then he does not understand "God" in a religious sense, but rather, say, in the Kantian manner, as a thought of the whole. This approach is opposed to the Humean perspective, which rejects any inference to universality or necessity from the empirical world. For Hegel, the cognitive process must start with being and progressively rise to a concrete grasp of the whole. According to Hegel, Kant (like Hume) mistakenly limits thought about the world to the understanding (**p.146**) (*Verstandesform*). In other words, Kant fails to transform the empirical form of the world into something general or universal (*ein Allgemeines*). "The sense of the elevation of spirit is that, while being belongs to the world, this being is merely a semblance [Schein], not the true being, not absolute truth, and that this [truth] is instead beyond that appearance in God alone, that God alone truly exists" (*EL*, §50, p. 98). Similarly, the suggestion that "spiritual nature" is the only acceptable starting point to know the absolute is presumably not intended as a religious claim to knowledge through a return to God. Rather, it is a suggestion that knowledge in the full-sense requires cognitive holism.

The alternative, which runs from abstract thought to limitation, leads to a contradiction between thought and being. Just as one cannot find the general or universal in the empirical, one also cannot find the empirical in the general or universal. It follows, as Hegel points out, that being cannot be derived from concepts. It further follows that the critical philosophy, which fails to reach concreteness, remains abstract.

According to Hegel, the abstract, formal character of Kant's theoretical reason recurs in his view of practical reason; for instance, in his conception of the thinking will (*der denkende Wille*). Hegel's critique of Kantian practical reason briefly restates a point earlier raised in the *Phenomenology*: it is purely formal, entirely devoid of content.

Hegel gives more space to reflecting judgment, which is central to Kant's aesthetic theory in the *Critique of Judgment*. This is the principle of intuitive understanding in which the contingent particular is limited by the universal (or abstract identity) encountered in art objects as well as organic nature. Hegel treats the particular, which Kant understands through the universal, as the concrete universal, or as "the actuality of the ideal."<sup>71</sup> He seizes on Kant's remarks about artistic objects as appropriate to introduce the concrete idea. According to Hegel, who passes rapidly from the Kantian view of aesthetics to teleology, Kant grasps reflecting judgment as the goal of so-called living products of nature while turning away from its realization in any finite external form. In other words, the goal (*Zweck*) is a so-called subjectively-existing cause, which manifests itself through representation (*Vorstellung*) only. Kant continually stresses the limits of knowledge to appearance. In passing, Hegel notes the difference between two subjective types of thought about categories, or again, inner purposiveness. He regards the latter, which Kant does not work out in detail, as more promising. Hegel comments that the realization of this idea would be the realization of God. This point contrasts with Kant's view of human being as the highest form of nature. Possibly with Aristotle in (**p.147**) mind, Hegel remarks that the abstract

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Kantian conception of the good is only *our* good, which goes no further than a merely abstract idea of what ought to be but is not actual.

In a final point, Hegel notes it is impossible for a dualistic theory to bring together opposing sides. He is thinking of the inconsistency between the Kantian view “that the understanding acquires knowledge of appearances only, while maintaining, on the other, that this kind of knowledge is something absolute by saying that knowing cannot go further, that this is the natural, absolute barrier [Schranke] for human knowledge [Wissen]” (*EL*, §6, p. 106). According to Hegel, it is inconsistent to limit cognition to appearances while also insisting it is absolute. He goes on to claim—hugely underestimating Kant’s effect on the later debate—that the main result of the Kantian philosophy consists in reawakening consciousness of absolute inwardness. This suggestion is linked to the principle of the independence of reason (*Unabhängigkeit der Vernunft*). When Hegel was writing, this was a widely accepted presupposition. It is still widely accepted today.

Hegel devotes roughly equal space (*EL*, 20 §§) to the third moment of the relation of thought to objectivity: immediate knowledge. Hegel is dealing here with a contemporary theme; Jacobi, for instance—who is a plausible target here for Hegel—relies on intuitive (or nondiscursive) rather than discursive claims for truth.

According to Hegel, the critical philosophy is a dualism composed of a subjective conception of thinking opposed to truth understood as a concrete universal. The opposing standpoint is the conception of thought as an activity intended to grasp the particular, but incapable of grasping truth. The account in the *Encyclopedia Logic* restates and develops Hegel’s remarks in earlier writings on immediate knowing. In *Faith and Knowledge* (1802), where he analyzes the relation between religious faith and cognitive beliefs—or between the truths of religion and those of philosophy and science in the views of Kant, Jacobi, and Fichte—Hegel is especially concerned with the opposition between the critical philosophy and immediate knowing.

In the *Encyclopedia Logic*, Hegel begins his account in indicating that the opposition between reason and faith has recently been transferred into philosophy. According to Hegel, this emancipation of reason is only a pyrrhic victory, since reason is no longer reason and faith is no longer faith. Hegel is often regarded, especially by the young Hegelians, as either overtly or at least covertly a philosopher of religion. In fact, his cognitive approach is rigorously secular. Not surprisingly, he is extremely critical of any attempt to base reason (**p.148**) on faith. According to Hegel, since the absolute lies beyond reason in the writings of Kant, Jacobi, and Fichte, philosophy has once again made itself into the handmaiden of faith (*FK*, p. 56). The result is a mere subjective longing for “the Absolute and the eternal” (*FK*, p. 58) situated beyond intuition, which concerns itself with the sensuous and the limited (*FK*, p. 60). Kant, Jacobi, and Fichte are caught in the finite and the empirical (*FK*, p. 61), hence enmeshed in the antithesis of finitude and reality (*FK*, p. 62).

Hegel notes in passing that Jacobi attacks Kant’s proofs of the understanding (see *EL*, §50, 96). In *Faith and Knowledge*, he depicts Jacobi as a subjective thinker, and describes his position as a subjective variation on a wider empirical genus, including Locke and such “eudaimonists” as Kant, Jacobi, and Fichte. These three thinkers share a common view of the finite as opposed to the empirical in “an idealism of the finite” (*FK*, p. 64).

Hegel discusses immediate knowing as a pre-philosophical standpoint under the general heading of sense certainty (*der sinnlichen Gewissheit*). Immediate knowing (*unmittelbares Wissen*) is “knowing of the immediate or existent” (*Wissen des Unmittelbaren oder Seienden*). In *Faith and Knowledge*, where he devotes more space to Jacobi than to either Kant or Fichte, he presents Jacobi’s philosophy as the opposite of Kant’s. According to Hegel, Jacobi transforms the objective form of Kant’s views of finitude and subjectivity into mere individuality (*SK*, p. 97). In the same way as his account of Reinhold in the *Differenzschrift*, his account of Jacobi’s theories here is detailed but also withering. He devotes extensive space to demonstrating that Jacobi misreads Spinoza (*FK*, p. 106–16; see also *EL*, §50, p. 98)) and he criticizes Jacobi’s attack on Kant (*SK*, 120–33).

Jacobi’s supposed weakness lies in emphasizing the finite at the expense of the infinite (*FK*, 149). This approach yields an unmediated, illicit transition from a merely subjective idea to being—a transition similar to the ontological proof of the existence of God. Hegel hammers away at this point in the detailed account of immediate knowing in the *Encyclopedia*. Kant’s supposed inability to rise from the (fixed determinations of the) finite to the infinite is compounded in Jacobi’s anthropomorphism and general attack on cognition (see *EL*, §62, p. 111). The method through which everything is mediated yields the particular, the dependent and finite in transforming “reason” into “immediate knowing, faith” (*EL*, §63, p. 111). According to Hegel, since these categories are familiar, they are often not examined. Jacobi supposedly conflates ordinary belief about things in the external world, better designated as immediate knowing, with religious belief about God (see *EL*, §63 R, p. 112). Immediate knowing supposedly grasps that the infinite in our representation **(p.149)** is. It opposes philosophy, for instance the Cartesian conception of the cogito. It further asserts knowledge claims as a mere fact (*eine Tatsache*); in short, as a psychological phenomenon, in eschewing study of the concept, mediation, and their relation to knowledge (*Erkenntnis*). Hegel analyzes this relation in the account of essence in the second part of his theory of logic. Immediate knowledge of facts differs basically from so-called immediate religious knowledge, which is mediated by religious education. Hegel further calls attention to the relation between innate ideas and immediate ideas.

Hegel depicts immediate knowing as turning on the transition—hence the mediation—from the subjective idea to being. He now turns this insight against immediate knowing. From this standpoint, since “neither the idea as a merely subjective thought nor a being solely for itself is what is true [das Wahre]” (*EL*, §70, p. 119). Despite what the ordinary, untutored observer thinks, what is immediate is mediated.

Hegel here—as earlier in the *Phenomenology*—rejects immediate knowing. Subjective claims for knowledge based on the mere fact (*Faktum*) of consciousness are one-sided. Hegel explores the view that this fact is present in everyone’s consciousness in pointing out that the Ciceronian *consensus gentium* does not satisfy the criterion of universality. A second difficulty with immediate knowing is that any superstition or idolatry becomes true. Finally, immediate knowledge of God is confined to the fact that God is, and hence does not address the question of what God is, which cannot be immediate but requires mediation. This latter point presupposes it is possible to surpass the impoverished view—or simple acknowledgment that God is the unlimited supersensible—by pointing out “the fact that God exists, not what God is “*what God is*” (*EL*, §73, 121). Yet since the content of immediate knowing is finite and not infinite, from this perspective, God becomes an abstract essence.

Hegel brings out this inference in making two points (*EL*, §75). It is factually false that there is immediate knowing without mediation. It is equally false that thinking is based on finite determinations, which are not self-sublating and which are mediated by something else. His positive example is, as he notes, his theory of logic.

Hegel ends his account of immediate knowing in comparing and contrasting it with the supposedly naïve, modern, implicitly precritical metaphysics exemplified by Descartes. Hegel thinks immediate knowing makes a qualified return to Cartesianism, with which it shares three points: to begin with, there is “the plain inseparability of thinking and the being of the thinker,” since thinking and being are the same; second, there is an inseparability between God’s **(p.150)** essence and existence (for instance, as codified in the ontological proof); and finally, consciousness of external things is merely “deception and error ... contingent ... or a *semblance* [*Schein*]” (*EL*, §76, pp. 123–24).

The latter point, which is not obvious, requires qualification since Descartes famously distinguishes between true (or clear and distinct) and all other perceptions. Hegel, who does not pause to qualify his claim, calls attention to distinctions between immediate knowing and naïve metaphysics. Cartesian metaphysics, which rests on indemonstrable presuppositions taken to be indemonstrable, leads to further forms of knowledge, including modern science. But immediate knowledge, or the modern standpoint, yields no more than the limited result that cognition based on finite mediation yields no truth. Hegel believes immediate knowing is a form of skepticism. He stresses this conclusion in his second point—that is, that the modern standpoint neither alters the scientific approach to cognition nor leads to knowledge since it is merely arbitrary and anti-philosophical. He concludes his account of immediate knowing in suggesting that we must put aside the opposition between immediacy and mediacy (or mediation), as well as all other arbitrary presuppositions, when we enter into science (see *EL*, §78).

Hegel does not specify his intentions. Yet it is reasonable to infer that his remarks about “The Positions of Thought with Respect to Objectivity” are intended to identify the main conceptual models in the history of the tradition. These are models he rejects for reasons already given. It remains unclear whether these three conceptual models are intended to be exhaustive or merely a short list of prominent alternatives. Hegel’s featured alternative cognitive model is a dialectical theory he recommends in place of other cognitive approaches, above all the Kantian theory of the understanding.

One point is the view that cognition aims at a form of objectivity that understanding cannot reach. Hegel prefaces his account of the three approaches he considers by indicating his concern with objective thought. This is not only the goal, but also, as he darkly says, the absolute object of philosophy. In focusing on thought, not being, Hegel simply abandons the ancient quest to know reality, which in our time continues under the heading of metaphysical realism. Yet he explicitly maintains the concern with objectivity in his belief that philosophy must grasp the truth, hence be objective, not subjective. If thought determinations (*Denkbestimmungen*) have fixed oppositions, then, in Hegel’s language, they are finite, not infinite, and thus inadequate to yield truth. According to Hegel (who now uses the Kantian term), thought that yields only finite determinations is called understanding. Each of the cognitive models Hegel reviews in the “Positions of Thought with Respect to Objectivity” belongs to the **(p.151)** understanding. The finitude—hence cognitive inadequacy—of so-called simple thought determinations lies in the fact that they are subjective but have an objective antithesis,



on the one hand; and on the other hand, that as limited content, they further stand in antithesis against each other as well as against the absolute.

Hegel's point seems to be that philosophy is not concerned, as Hume and Kant think, with knowing individual things. Rather, it is concerned with what one would now call a holistic approach to the contents of experience. Thus Kant limits knowledge to items of experience and knowledge through the understanding, while ruling out cognitive claims about what lies beyond the limits of experience. As a result, he turns away from reason in favor of the understanding as his main cognitive instrument. Hegel, on the contrary, aims to go beyond mere empirical determinations, hence beyond empiricism in either the usual British or the revised Kantian senses of the term.

We can infer that for Hegel philosophy, which begins with simple thought determinations (*einfache Gedankenbestimmungen*), yields objective knowledge of the so-called concrete absolute lying beyond subjectivity, hence beyond understanding. The *Phenomenology*, for instance, runs from "the first, simplest appearance of spirit, namely immediate consciousness, and developed its dialectic up to the standpoint of the philosophical science, the necessity of which is shown by this progression" (*EL*, §25, p. 66). The process of development leading from immediate consciousness to philosophy is increasingly mediated, hence (in Hegelian terminology) increasingly concrete. According to Hegel, "the standpoint of philosophical knowing [Wissen] is in itself the most basic and concrete" (*EL*, §25, p. 66). The standpoint of philosophical science reached at the end of the *Phenomenology* presupposes "concrete shapes of consciousness" such as morality, ethical life, and so on; in other words, the mainly formal "development of the *contents*" as "the subject matters of special parts of philosophical science." Hegel now repeats a point as already noted several times in the introduction to the *Phenomenology*: that "philosophical science develops so to speak to take place behind consciousness's back insofar as the content (as what is in itself) relates to consciousness" (*EL*, §25, pp. 66–67). This is a straightforward claim against Kant's skeptical view that the thing in itself does in fact appear in consciousness, to begin with, in the simple but logical thought determinations.

### Hegelian Logic

Hegel's rejection of prior models of the relation of thought to objectivity points to the alternative model he describes in his theory of logic. He expounds his **(p.152)** conception of logic differently in the *Encyclopedia* and in the *Science of Logic*. In the *Encyclopedia*, he introduces his approach in three short numbered paragraphs accompanied by lengthy notes. He begins by remarking that the logical, or logical-real, simultaneously encompasses "the abstract side or that of the understanding ... the dialectical or negative-rational side ... the speculative or positive-rational side" (*EL*, §79, p. 125). According to Hegel, who has Kant in mind, the understanding is limited to fixed determinacy and distinctness. Kant replaces intuition—on which Descartes, for instance, relies—with a faculty that transforms sensory contents into perceptual objects. Yet the abstract result, which for both Kant and Descartes centers on fixity and distinctness, falls short of thinking or grasping (*Begreifen*). Thinking does not halt, or reach its end, in understanding, and "the concept [Begriff] is not a mere determination of the understanding" (*EL*, §80, p. 126). In short, Hegel thinks that to equate understanding and thinking, as Kant does, is in effect to take the part for the whole in prematurely stopping the conceptual process before reaching cognition.

Hegel explains this point in a detailed addition to the numbered paragraph, to begin with in distinguishing intuition and understanding. The latter provides abstract generality or universality (*Allgemeinheit*). As the opposite of intuition and feeling, it differs from the particular. The opposition between understanding and feeling turns on the view that thinking is one-sided. Hegel believes such criticisms go no further than the understanding (“das verständige Denken”). He concedes that both theoretically and practically, without understanding there is neither fixity nor determinacy. On the contrary, cognition (*Erkennen*), which literally begins in grasping (*auffassen*), presents objects in their specific differences (*in ihren bestimmten Unterschieden*). In other words, cognition follows upon (hence presupposes) the understanding as a necessary stage, but not as the terminus ad quem. Hegel, who builds on the critical philosophy, accords the understanding, which plays a necessary but limited role in cognition. In understanding, thought distinguishes between things, forces, species, and so on. On this level, its principle is identity. Hegel thinks mathematics is a clear example.

According to Hegel, we should not understand the logical (*das Logische*) as a subjective activity. We should rather understand it as “*Allgemeine*” and objective, as an approach which finds application in the understanding, or the first form of the logical. Hegel’s example is God’s goodness (*die Güte*), which employs finite categories applying equally to animals and plants, hence to all possible objects. Hegel goes on to give a series of other examples; the main point is the distinction between understanding and other forms of thought.

**(p.153)** Hegel’s dialectical approach to logic was unusual in Hegel’s time as in our own, in which there is a distinct preference for an approach to cognition that relies on understanding.<sup>72</sup> Part of the problem is the obscurity of the Hegelian conception, which he has difficulty in explaining. The so-called “*dialectical moment*,” which opposes the fixity of the understanding, “is the self-sublation of such finite determinations by themselves and their own sublation [das eigene Sichaufheben] into their opposites” (*EL*, §81, p. 128; translation modified). Hegel follows this relatively clear statement with two further points presumably intended to meet contemporary objections to dialectic or dialectical thinking. If taken separately, hence in isolation from understanding, dialectic results in simple negation, hence skepticism. Dialectic is commonly taken to be a mere external procedure (*Kunst*) arbitrarily yielding confusion in limited concepts and “a mere *semblance of contradictions* (*Schein von Widersprüchen*)” (*EL*, §81, p. 128); in short, as a subjective shuttling between different possibilities lacking any content. In this way, false appearance is mistakenly taken as true.

Hegel, who rejects these rival views of dialectic, responds unclearly that dialectic rather “aims precisely at contemplating things as they are in and for themselves, and from this emerges the finitude of the one-sided determinations” (*EL*, §81, addition 1, p. 128). It is unclear if “dialectic” refers to the work of the understanding, to things, to the finite in general, to all of the above or to some combination thereof. Is Hegel saying that dialectic arises on and is limited to the cognitive plane, or is he saying that dialectic is in some way in the things as it were? He can be read as claiming that dialectic is not something merely added, but that it is intrinsic to anything finite. According to Hegel, what is finite is one-sided. Dialectic is the self-negation of the one-sided and the finite—in other words, its own sublation (*sich selbst aufzuheben*). Hegel differentiates the result of the understanding, which on his account is prescientific, and what he calls science (for Hegel, logic is a science) as opposed to natural science. At stake is the difference between the critical philosophy—which for Hegel goes no further than the

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understanding and hence lacks a genuine conception of reason—and science, which emerges in the wake of understanding, and which depends on dialectical reason.

It is difficult to specify the precise meaning of this claim. To begin with, science differs from understanding, which yields only fixity and determinacy, but which, under scrutiny, changes into other shapes. Unlike the understanding, science results in an immanent linkage in creating a structured whole lying beyond its discrete parts, a whole that surpasses the finite. Hegel writes that the dialectical “is in general the principle of all movement, all life, and **(p.154)** all actual activity [and] equally the soul of all truly scientific knowing” (*EL*, §81, addition 1, p. 129). Hegel adds, when rejecting so-called one-sided approaches, that “the dialectic differs essentially from such behavior, for it aims precisely at contemplating things as they are in and for themselves, and from this emerges the finitude of the one-sided determinations of the understanding” (*EL*, §81, p. 129).

This short statement about dialectic is accompanied by two detailed remarks. Taken together, these remarks defend his view of dialectic in three related ways: in characterizing it as the intrinsic principle of motion in the cognitive process; in calling attention to the view that dialectic naturally arises after understanding as a further step in the cognitive process, hence once more suggesting that Hegel’s position builds on and carries further Kant’s; and in referring to the place of his account in the history of this concept that goes back to ancient Greece. We recall that Plato, for instance, speaks of “dialectic” as the direct grasp of the initial principles or hypotheses, presumably by suitably talented and trained philosophers.<sup>73</sup>

Hegel often appears to replace argument by description. At the risk of repeating himself, he writes that dialectic “is in general the principle of all movement, all life, and all actual activity” (*EL*, §81, addition 1, p. 129). This metaphorical statement is implausibly broad. Hegel restricts his claim in a way that makes evaluation possible in the next sentence: “The dialectical is equally the soul of all truly scientific knowing” (*EL*, §81, addition 1, p. 129). There is a clear difference between asserting dialectic is immanent in things and in asserting it is immanent in the cognitive process about things. So-called “scientific cognition” is apparently Hegel’s formulation of the view that knowledge claims must be rigorous. He suggests that “the finite,” or result of the understanding, which is not merely externally limited, rather, through its own nature “sublates itself (*durch seine eigene Natur sich aufhebt*).” In other words, the fixity and determinacy exhibited through the results of the understanding are not permanent, but impermanent, since it changes into its opposite (*durch sich selbst in sein Gegenteil übergeht*). Hegel, now sounding pre-Socratic, illustrates this point in pointing out that a living person is also mortal, hence bears death within himself.

Hegel does not seem to distinguish between the historical Socrates and his role in Plato’s dialogues; he calls attention to the Platonic roots of dialectic in Socratic practice. According to Hegel, Plato invented a scientific, objective conception of dialectic. In Plato’s dialogues, dialectic is exemplified in the Socratic practice of leading his discussion partners later to say that opposite of what they initially said. In this way, Plato transforms the subjective **(p.155)** Socratic conception of dialectic into an objective conception in showing “the finitude of all fixed determinations of the understanding in general” (*EL*, §81, addition 1, p. 130). Hegel further suggests dialectic is not merely restricted to philosophical discourse, but found literally throughout experience. His point is once again that when we look closely, we see in the so-called “dialectic of the finite” that “the same thing is driven beyond what it immediately is and turns

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over into its opposite" (*EL*, §81, addition 1, p. 130). He seems to be saying that on further inspection, specific claims that turn out to be insufficient are replaced by further claims in an ongoing cognitive process.

In the second, shorter addition to this paragraph, Hegel, in drawing on his important article about skepticism, considers skepticism regarding the results of the understanding. Skepticism points out "the nothingness of all things finite" (*EL*, §81, addition 2, p. 131), which cannot resist it. As in the *Phenomenology*, so here Hegel includes skepticism within philosophy as "the dialectical moment" in which what is fixed and determinate turns into its opposite. Skepticism is not a fundamental flaw that undermines the cognitive process. It is also not a general claim that "no knowledge is possible," which requires knowledge about the impossibility of knowledge. It is rather a version of the familiar view that, on occasion, specific cognitive assertions fall short of truth, and hence need to be revised.

Hegel ends the second addition to his account of dialectic in claiming that dialectic is positive or positively rational, or again, speculative. He needs such a claim since he has so far emphasized dialectic as negative, as the self-destructive component lodged within the fixity and determinacy of the understanding. If there were no positive moment, the cognitive process would merely lead to cognitive skepticism. "Speculative" is in this context a synonym for the terms "positive" or "positively rational"—in short, the result of Hegel's adoption of speculation as central to philosophy as early as the *Differenzschrift*. According to Hegel, "The speculative or the positively rational grasps the unity of the determinations in their opposition, the affirmative that is contained in their dissolution and their passing over into something else" (*EL*, §81, p. 32).

In the *Encyclopedia*, the accompanying remark includes three comments intended to show dialectic yields a positive result within a widened conception of logic as both transcendental and dialectical. The positive result yields determinate content, or something, not nothing. In other words, unlike skepticism, dialectic is not simply negation but, as Hegel elsewhere says, determinate negation with determinate content. This suggests the second point—namely that the result is not simply logical, but "*something concrete*," or a "unity of **(p.156)** *distinct determinations*." The third point situates transcendental logic, which Hegel calls the "*mere logic of the understanding*," in which finite determinations are falsely taken as infinite, within speculative logic. The latter contains the former as a special, limited case, which is valuable not as the solution of the problem of knowledge, as Kant mistakenly thinks, but as a stage of the cognitive process.

In the addition, Hegel returns to the earlier point that rationality is not merely confined to philosophy. The familiar claim that a human being is a rational animal points to a view of the rational as "generally to be something unconditioned which for that reason contains its determinateness within itself" (*EL*, §82 A, p. 132). The rational is by implication a self-contained whole that depends on nothing else. This suggestion reprises the point Hegel already made in the *Differenzschrift* against Reinhold. The "speculative" means the "rational" or the "positively rational" inasmuch as it is "something thought." The term "speculative" is usually understood vaguely. Hegel here takes the term to have two specific meanings. It refers to what lies beyond the immediately present result of the understanding, which is "transcended" or gone beyond. It further refers to what, in its speculative stage, has given up the subjective for the objective. In other words, the speculative designates what Hegel now helpfully characterizes as "concrete and a totality." In short, as a concrete totality, it proves itself (*als konkret und als Totalität*

*erweist*). Hegel further goes on to discuss the relation between the mystical and the speculative elements, but we need not follow him there.

It will be useful to close this brief account of Hegel's conception of the logical with some remarks on his general solution to the problem of the categories. This is one of the ways in which he can be seen as extending Kant's position. According to Hegel, Kant stops short at the deduction of the categories, hence without formulating the categorial framework mandated by the view that science requires a system based on a single idea.

Hegel now considers a series of themes, including the difficulty of the beginning point, which is raised in modern philosophy as part of the justification of cognitive claims. This particular theme is especially important for epistemic foundationalism, which emerges in the modern effort to counter Pyrrhonian skepticism. Early in the modern tradition, Montaigne and Descartes disagree about the possibility as well as the conditions of knowledge. In "The Apology for Raimond Sebond," Montaigne revives Pyrrhonism in arguing that knowledge based on sense experience does not grasp reality. Descartes closely follows Montaigne's argument in drawing positive conclusions for cognitive claims supposedly able to defeat even the most radical form of skepticism **(p.157)** in adopting an unshakeable Archimedean beginning point (*fundamentum inconcussum*).

Descartes's suggestion that knowledge claims are justified through an initial point known to be true is widely influential. It is, as has been noted several times, the basis of Cartesian foundationalism. Reinhold and Fichte disagree about whether a Cartesian beginning point is possible. In the *Encyclopedia*, Hegel responds to this problem in suggesting as early as the first sentence of the first paragraph that, since philosophy can presuppose nothing—nothing at all—it must by implication justify any and all its cognitive claims. "Philosophy lacks the advantage, which the other sciences enjoy, of being able to *presuppose* its *ob-jects* [*sic*] as given immediately by representation" (*EL*, §1, p. 28).

If philosophy can presuppose nothing, then it also cannot merely assume but must justify its beginning point. Hegel undertakes to do so from an anti-or at least non-foundationalist perspective. He begins by stating that "Being is the Concept only *in-itself*" by pointing to the identity between concept and object. Hegel, who understands being as becoming, follows Heraclitus (whom he reads as a dialectical thinker) rather than Parmenides. He famously remarks there is no proposition in Heraclitus he does not take up in his logical theory.<sup>74</sup> According to Hegel, being and becoming are interrelated, since the former unfolds the concept in itself, whose explication finally turns into the "totality of being in the course of which the immediacy of being is sublated." Three points are important here. To begin with, there is the identity of thought (or concept) and being, which does not need to be constructed. In a sense it is always already there, since thought is being and being is thought. Second, the identity develops since being develops. Finally, cognitive claims cannot rest with particular objects (*seiende*) since conceptual explication encompasses all of being. In other words, cognitive claims—which are holistic—cannot stop either with particulars or with the results of the understanding, but must go beyond it in aiming at the whole, or the whole of being.

Hegel's rapid remarks about the identity of being and concepts focus his approach to the cognitive problem. As he has in writings since the *Differenzschrift*, so here Hegel brings together—or, depending on the perspective, perhaps even conflates—cognitive and religious claims in drawing attention to the relation of thought and being. According to Hegel, being as well as its limitations (*Bestimmungen*), including logical limitations in general, "can be regarded

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as the definitions of the absolute, as *metaphysical definitions of God*" (EL, §85, p. 135). This possible religious reference can perhaps more plausibly be read as a quasi-Spinozistic, pantheistic claim for the identity of God and nature. Hegel seems to be claiming that a metaphysical definition of God **(p.158)** entails specifying God's nature in thought—or, since logic encompasses all thought, in logic.

Though the exposition is obscure, the basic idea is clear enough. Hegel is suggesting that by virtue of the identity of thought and being, through concepts leading to a grasp of the whole, we know the absolute (or God) in the form of thought. In other words, he thinks of logic as the satisfactory replacement theory for any and all prior or possible attitudes of thought to objectivity.

In his account of quality, Hegel further devotes three paragraphs to being as the logical beginning point and as self-developing, hence as generating what from Hegel's perspective are increasingly concrete concepts of the logical framework. In the lesser *Logic*, Hegel lays claim to pure being as the beginning by pointing out that it is pure thought, undetermined, simply immediate. His account builds on Fichte's view that an initial principle can be neither proven nor defined (SK, 93). Hegel similarly claims a so-called first beginning is not and cannot be determined by anything else, since there is nothing prior to it. He does this by noting two points: anything else is already mediated (*bereits Vermittlung ist*), hence not first; and being is always contained in it. Clearly Hegel is taking as his model the most general, hence least specific and least concrete possible concept. Since development is teleological, the relevant conceptual framework must develop from least specific through ever more specific stages in aiming toward the supposedly most specific, fully mediated concept. Hegel seems to presuppose an "identity" between being and existence. In the *Critique of Pure Reason*, in refuting the ontological proof, Kant rejects a supposed identity of thought and being since he thinks existence is not a predicate. Hegel, in implicitly refuting Kant, suggests that being is the first, most general, and most abstract definition of the absolute—or God, or again, the most real, the world, and so on.

The account of being as the beginning point is followed by a further claim that it is nothing. This claim is plausible since pure being is a pure abstraction, or as Hegel says, the absolutely negative (*das Absolute-Negative*), which, hence, is nothing (*das Nichts*). Hegel applies this point as the second definition of the absolute and with respect to the thing in itself, which has no content at all and hence refers to nothing. In a remark, he points to the difficulty of distinguishing—since being, as he says, lacks determination—between being and nothing. Heidegger ought to have taken this point seriously.

In characterizing nothing, Hegel calls attention to its relation to becoming in making two points. Being and nothing are the same since, as just noted, pure being—which has no characteristics—is literally nothing. Further, the unity of being and nothing is becoming. According to Hegel, "Conversely, nothing, as **(p.159)** this immediate, self-same [category], is likewise the same as being. The truth of being as well as of nothing is therefore the unity of both; this unity is becoming" (EL, §88, p. 140).

Hegel's point that being leads through nothing to becoming again indicates that he follows Heraclitus in taking being as a kind of flux. This point is reinforced by an appended remark in which he presents an anti-Parmenidean, anti-Kantian, Heraclitean solution to the problem of how to generate concepts. The author of the critical philosophy claims to deduce a finite, invariable series of categories (arguably) appropriate for any and all content. Hegel never varies from his claim in the *Differenzschrift* that Kant fails to deduce the categories. In substituting

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“concept” for “category,” Hegel suggests that through mediation, concepts form an ever more concrete framework terminating in full mediation of being, the initial concept in the conceptual framework.

Hegel, who is aware of the paradox in identifying being and nothing, qualifies this claim in a number of ways. This is, to begin with, only an analysis of what is already contained in the concept. Being and nothing are the same and also diverse, or different. Hegel thinks this claim cannot be rejected without illicitly smuggling in other, more restricted perspectives. One cannot deny that everyone understands being and nothing, since they are contained in becoming, which everyone grasps. Yet what has to be grasped is not the unity, but rather “the unity *in the diversity*” or again “the unity of being and nothing ... the [Heraclitean] unrest [Unruhe] in itself” (*EL*, §88, p. 143). In the appended addition, Hegel points out that becoming is a concrete thought with respect to the mere abstractions of being and nothing. He sums up his basic claim in writing, “In being, then, we have nothing and in it being [i.e., something]” (*EL*, §89, addition, p. 143).

### With What must Science begin ?

The lesser *Logic* provides an extremely compressed account of why logical analysis must begin with being, which necessarily develops through nothing to becoming, then on to *Dasein*, and so on. The account of the beginning of science or logical science in the greater *Logic* is less compressed and slightly easier to grasp, but also unusually complex, even by elastic Hegelian standards. The main difference is that in the greater *Logic*, Hegel treats the problem of the beginning of logical science in a separate chapter that in English translation is awkwardly entitled as “With What Must the Beginning of Science Be Made?” Hegel here takes up again, at the end of his career, the problem that concerned him at the beginning: the justification of claims to know, **(p.160)** which Descartes bases on foundationalism, Locke on empiricism, Kant on a priorism, and Hegel (following Fichte) on circularity. This chapter differs from the more compressed treatment of this theme in the *Encyclopedia Logic* in several ways. They include extensive, often confusing detail, as well as references to Reinhold, Fichte, and others. In the *Differenzschrift*, before he worked out his position, Hegel argues that cognitive theory justifies itself. In the greater *Logic*, when he has already worked out the phenomenological and logical phases of his position, he restates a claim about philosophy made earlier in the *Differenzschrift* before he had a theory of logic. According to Hegel, the system of logic—the deepest part of the position, hence the deepest part of his post-Kantian theory of cognition—justifies itself.

Hegel starts by pointing to an obvious enigma: the beginning must be either mediated or immediate (unmediated)—in short, based in faith—but can be neither. According to Hegel, who here refers to a passage in the *Encyclopedia* (see *EL*, §§61 ff.), mediation and immediacy are inseparable. In a nicely worded passage, he claims there is nothing—nothing at all—that is not immediate but also “mediate,” or mediated. It follows that there is no alternative to starting with one or the other. In pointing out that the general problem of cognition, which belongs to logical science, cannot be clarified prior to science, he again denies the Kantian view that the philosophical instrument must be examined before employing it. His suggestion that science and science alone can answer the question of where to begin contradicts Fichte’s claim that science begins in a prescientific decision. In short, philosophy is adequate to the task of providing cognition.

The title of the chapter incorrectly suggests that, like Descartes and Kant, Hegel will consider science in general. Hegel immediately narrows the theme merely to the logical beginning (*logische Anfang*).<sup>75</sup> This move has the double advantage of restricting the scope of the discussion as well as linking his logical theory to his phenomenological theory in a circular relationship. Hegel has consistently claimed, since the *Differenzschrift*, that the epistemic process is circular. Here he again points out that logic presupposes phenomenology (or the science of spirit) in demonstrating the standpoint of pure cognition, from which it begins, which it carries further, and which it completes in simple thought determinations. The science of spirit begins from immediate consciousness, which is a presupposition yielding as its result pure knowledge—that is, “Logic,” which is “the *pure science*” or again “pure knowledge in the full compass of its development” (WL, p. 47).

After these preliminary considerations, he immediately considers “*what is there before us*” or “simple immediacy” (*einfache Unmittelbarkeit*, WL, p. 47). **(p.161)** According to Hegel, “simply immediacy” is an expression of reflection (*ein Reflexionsausdruck*), which is nothing more nor less than “*pure being*” (*das reine Sein*). At this point in his text, Hegel returns to Reinhold in altering the peremptory judgment rendered at the beginning of his career. In the *Differenzschrift*, as repeatedly noted, Hegel considered Reinhold to be the leading non-philosopher of his time, and rejected Reinhold’s supposed conflation of the views of Fichte and Schelling. Though he did not object to the “revolution of bringing philosophy back to logic”—which Reinhold thinks was already accomplished through Bardili—it is only at the end of his career that Hegel provides the logical theory implicit in his initial philosophical text so to speak.

In the greater *Logic*, Hegel has so far argued that being and being alone is the logical beginning. He now restates the argument in the *Differenzschrift* about science as intrinsically circular with explicit reference to Reinhold. Hegel, who is usually careful before he reacts, rarely changes his mind. The evolution of his view of Reinhold is a rare counterexample. In the period separating the *Differenzschrift* from the *Science of Logic*, and after working out his mature position, his evaluation of Reinhold has basically changed. Yet Hegel’s conception of the self-justification of philosophical cognition has not changed. In the *Differenzschrift*, Hegel refutes Reinhold in expounding a rival account of philosophical theory as self-justifying. In the greater *Logic*, Hegel expounds basically the same conception of self-justification by now signaling his agreement with Reinhold.

Hegel situates his approach to logic with respect to Reinhold’s approach to cognition. In the *Differenzschrift*, Hegel discusses Fichte, then Schelling before turning to Reinhold as if he did not belong to the post-Kantian debate. In addressing the theme of the beginning point of science, Hegel now turns away from Schelling—whose position is not relevant to his immediate concerns—to consider Reinhold and Fichte in chronological order. This theme, while a secondary concern in the *Differenzschrift*, is central to his theory of logic. This change in emphasis leads to a revised reaction to Reinhold, as well as a fuller but basically unaltered claim about the self-justification of philosophical cognition.

We recall that in the *Differenzschrift*, Hegel answers Reinhold’s call to found cognition in contending that a theory or conceptual framework progressively justifies itself as it develops. In his logical writings, Hegel points to the relation between the contents of consciousness—which unfold behind the back, as it were—and culminate in philosophical science and the logical development of simple thought determinations. According to Hegel, questions about cognitive justification necessarily begin in immediate experience and **(p.162)** end in the simple thought



determinations of logical theory. Hegel is making the point that phenomenology and logic exhibit a circular connection since phenomenology leads to logic, which depends on phenomenology. In other words, the *Phenomenology* leads up to and justifies the logical theory worked out in slightly different versions in the two *Logics*, and conversely, the logical theory underlies and justifies the phenomenological approach to cognition. If phenomenology leads to logic, and if logic leads to phenomenology, then their relation is not linear but circular. This must be regarded as Hegel's final answer to the deep modern question of how to justify claims to know.

In the *Differenzschrift*, at a time when Hegel could discern no redeeming feature in Reinhold's approach, he answered the latter by ridiculing Reinhold's so-called founding-and-grounding tendency. In the meantime, Hegel has changed his mind. Now, rather than simply rejecting Reinhold's approach, he appropriates it for his own purposes in a wave of the dialectical wand. At the end of his career, Hegel thinks Reinhold's suggestion, namely, that absolute truth is a result leads to the view that philosophy is "a retrogression and a grounding" that is not a merely arbitrary assumption, but rather "partly the truth [das Wahre] ... partly the first truth [das erste Wahre]" (WL, p. 48). Reinhold's approach constitutes "an essential consideration" (*eine wesentliche Betrachtung*). The "progression" (or unfolding of logic) is "a retrogression and a grounding, only by virtue of which it then follows as a result that that with which the beginning was made was not just an arbitrary assumption but was in fact the truth and the first truth at that" (WL, p. 48). Cognitive claims are progressively demonstrated through the development of the theory whose justification is circular, since "that progression is a retreat to the *ground*, to the *origin* and the *truth* on which that with which the beginning was made, and from which it is first produced, depends" (WL, p. 49). In abandoning any form of the claim that science must begin in "pure immediacy," Hegel rejects linearity in returning to his early claim for the circularity of the cognitive process. At this point, he thinks, "the whole of science is in itself a circle in which the first becomes also the last, and the last also the first" (WL, p. 49).

In a circular cognitive process, the result—which Reinhold takes to be absolutely true (*das Absolut-Wahre*)—is the progression into its ground as well as the ground. Since the beginning of philosophy is contained as the ground (*Grundlage*) in everything that follows from it, it is always preserved, so to speak, and never simply left behind. Hegel infers from this point that the development (or progression) of the beginning transforms it from what is limited, immediate and abstract to what is mediated. In other words, "the line of scientific forward movement consequently turns *into a circle*" (WL, p. 49).

**(p.163)** Hegel now points out that the beginning point of science cannot be known at the outset, for it is not yet developed, but still abstract. Further, cognition is the result of the full developmental process. Hence, it is only through "its entire development ... [that science is] complete, full of content [inhaltvolle] and first truly grounded knowledge" (WL, p. 49; translation modified). Hegel is once again opposing cognitive foundationalists such as Descartes, Reinhold, and others. Cognitive foundationalists think that claims to know must be deduced from a ground known to be true; Hegel rejects this approach on the grounds that we reach truth only as the result of the fully developed cognitive process.

Hegel further rejects the idea that the beginning point of the theory is merely arbitrary or provisional. Rather, it is determined by the "matter at issue [die Sache selbst]" since "in pure science the beginning is made with pure being" (WL, p. 50). In other words, science—which includes everything, since nothing falls outside it—further includes the justification of its beginning point. Now making a weaker claim, Hegel states, "It lies in the *nature of a beginning*

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*itself* that it should be being and nothing else" (WL, p. 50). He infers from this point that nothing is necessary to begin other than to begin. In again responding to Reinhold, Hegel denies that the beginning of philosophy can be either a "more specific determination" or again, possess "a *more positive* content" than pure being (EL, §1).

Hegel further entertains the possibility science merely makes a so-called pure beginning in considering the view that "there is nothing, and something is supposed to become" (WL, p. 51). If it is to become, the beginning—which cannot be pure nothing—must rather be what Hegel designates as "a nothing." It follows that being, which must be present at the beginning, necessarily contains both "being and nothing," or is "the unity of being and nothing," or in still another formulation, is "non-being that at the same time is being, and being that at the same time is non-being" (WL, p. 51).

In the *Differenzschrift*, Hegel already depicted philosophy as the speculative effort to bring about identity in difference. He now comes back to this early description in an important passage that maintains his initial conception of identity. This form of identity restates Kant's Copernican insight. It maintains the general constructivist approach to cognition by indicating the continuity in Hegel's position with its Kantian roots. Hegel writes: "An analysis of the beginning would thus yield the concept of the unity of being and non-being—or, in a more reflected form, the concept of the unity of differentiated and undifferentiated being—or of the identity of identity and non-identity" (WL, p. 51). He goes on to claim that the logical beginning cannot be concrete, since in that **(p.164)** case it would contain (or rather, presuppose) a process of which the concrete would be the result. Yet if, on the contrary, we begin with the fact itself (*die Sache selbst*), then, as he points out, we begin with empty being.

Reinhold, who in his foundationalist phase is a Cartesian foundationalist, believes philosophy requires a cognitive foundation. As an anti-Cartesian anti-foundationalist, Fichte thinks philosophy must begin with the subject (*Ich*). According to Hegel, Fichte's approach can be depicted in relation to three further factors. These include reflection; then the fact that everything follows from the initial truth (*aus dem ersten Wahren*)—a concept close to Hegel's view; and finally the need that the first truth be known (*ein Bekanntes*) and not merely immediately certain, which goes beyond the Cartesian approach. The interest of Fichte's view lies in the fact that the subject (or self)—in short, "this immediate self-consciousness"—appears to be partly immediate, partly familiar, and in any case more familiar than anything else. In pointing to Fichte's belief that we are immediately self-conscious, Hegel stresses the difference between Kant's view, which denies self-consciousness, and Fichte's theory, which depends on it. Hegel, who prefers Fichte to Kant in this respect, immediately drives a wedge between Fichte's conceptions of finite human being and the philosophical subject by moving in the direction of the critical philosophy. The philosophical subject, or the beginning and ground of philosophy, which must be sundered from the finite subject, attains consciousness only in abstract form. Since the ordinary subject necessarily gives way to the philosophical subject of pure knowledge, in which the distinction between the subjective and the objective has vanished, the advantage of beginning with a familiar subject to which we can link through further reflection also vanishes. According to Hegel, an approach of this kind results not in clarity but in the worst kind of confusion and misunderstanding.

At stake is the problem—a central modern theme—of how to understand the philosophical subject. It has been noted more than once that Kant separates the finite human subject and the philosophical subject to avoid what Husserl later calls psychologism. The difficulty lies in finding

a way to avoid reducing the logical to the psychological while also maintaining a link between finite human being and objective cognitive claims. Fichte objects to Kant's supposed inability to grasp the subject as a unified being. Though Hegel criticizes Fichte's approach, it is unclear if he can bring together human being and the general conditions of knowledge.

Hegel believes that neither Fichte nor Kant transcends mere subjectivity. He criticizes the former, whose conception of the subject remains subjective. **(p.165)** The Fichtean subjective approach is incompatible with real scientific development. Scientific development emerges from the subject but maintains "an other with respect to the I" since it is still "entangled in appearance" (WL, p. 54). Hegel thinks Fichte fails to rise above mere appearance, or to maintain objectivity that is the condition of knowledge.

Hegel clarifies this point in expanding on the relation of subject and object, subjectivity and objectivity. Science is not concerned with the subject asserted to be pure knowledge or intellectual intuition. It is rather concerned with what is present or internal (*innerlich*) to thinking. It is further concerned with the specific character it has in this particular object (*die ein solches in diesem Dasein hat*). At the beginning of science, there can be nothing other than "a first, immediate, simplest determination" (WL, p. 55). The problem is how "such an absolute enters into thinking or how it can be known and expressed (*Aussprechen*). Any beginning must lie in simple immediacy where the process begins. If the beginning lies in simple immediacy, the only way to go further toward the concrete is through "a mediated process [*vermittelnde Bewegung*] emerging from this process" (ibid.). Lacking in this approach is the proof (*Beweis*) required by the concrete determinations.

Hegel illustrates this point by remarking that if the cognitive object contains more than merely pure being, then cognition must emerge not in representational but in conceptual form (*ins Wissen als denkendes, nicht vorstellendes, erst hervortreten*) situated beyond the pure beginning. Simple immediate being is prior to the progression from one thing to another. Hegel concludes, "This empty something [*das Einfache*], that otherwise has no further significance, that is empty, is therefore immediately the beginning of philosophy" (WL, p. 55; translation modified). In the final sentence, he adds that his analysis aims only to point out that the beginning requires no special preparation. In this way he returns the point made earlier in the *Phenomenology*: the proper way to begin is to begin.

The analysis of being is intended *inter alia* to justify claims to know and to formulate a conceptual framework that cannot be deduced, but that emerges out of the analysis of concepts in an ongoing progression from the abstract to the increasingly concrete. This is Hegel's response to Kant's conception of philosophy as a categorical framework deducible apart from and prior to experience. For Hegel, a conceptual framework cannot be deduced; it can only be formulated as a result of the confrontation of concepts with experience. Method cannot be isolated from science, nor theory from practice, since they are two inseparable dimensions of a single unified cognitive process. In **(p.166)** other words, Hegel's response to the important question (where does science begin?) is that philosophical science must begin without any presuppositions. For, by virtue of its intrinsic circularity, it is self-justifying. The proper response to Kant's failure to deduce the categories is not, like Fichte's aim, to improve on the Kantian approach. It is to give up the endeavor in turning from categories to concepts, which cannot be deduced but rather emerge in the effort to cognize conscious experience.

Notes:

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(1.) See Martin Thibodeau, *Hegel et la tragédie grecque* (Rennes: Presses universitaires de Rennes, 2011), p. 76n.

(2.) See Martin Heidegger, *Identity and Difference*, trans. Joan Stambaugh (Chicago: University of Chicago Press, 2002).

(3.) See Plato, *Republic*, trans. G. M. A. Grube (Indianapolis: Hackett, 1992), 596A, p. 265.

(4.) G. W. F. Hegel, *Phenomenology of Spirit*, trans. A. V. Miller (New York: Oxford University Press, 1977), §16, p. 9. Hegel, who apparently liked this expression, reused it later in an attack on Newton in the *Philosophy of Nature* by writing that “at night all cows are black” (G. W. F. Hegel, *Hegel’s Philosophy of Nature*, trans. A. V. Miller [Oxford: at the Clarendon Press, 1970], p. 76). In the *Phenomenology*, without mentioning Schelling by name, Hegel charged that intellectual intuition annihilates concrete determinations “in the night when all cows are black” and produces a philosophy of identity in which “everything is the same in the absolute” (Hegel, *Phenomenology*, §16, p. 9). In other words, intellectual intuition transports reason into the mush of a monochromatic formalism. Hegel’s claim clearly echoes Schelling’s own words: “Most people see in the being of the absolute nothing but a pure night and are unable to know anything in it; it dwindles away for them into a mere negation of multiplicity.” Schelling’s text appeared in his 1803 *Further Presentations from the System of Philosophy* (*Fernere Darstellungen aus dem System der Philosophie*, in *Schelling-Werke*, vol. 1, ed. Manfred Schröter [München: Beck, 1927], part 4, p. 401). In the letter accompanying the *Phenomenology*, Hegel wrote to Schelling: “You will not find that I have been too hard on the shallowness that makes so much mischief with your forms in particular and degrades your science into a bare formalism” (G. W. F. Hegel, *Hegel: The Letters*, trans. Clark Butler and Christiane Seiler; with commentary by Clark Butler [Bloomington: Indiana University Press, 1984], p. 80). Hegel’s critique of Schelling led to a break between the two former roommates. In Schelling’s response—which became his final letter to Hegel—he writes: “Insofar as you yourself mention the polemical part of the Preface, given my own justly measured opinion of myself I would have to think too little of myself to apply this polemic to my own person. It must therefore, as you expressed in your letter, apply only to a further bad use of my ideas and to those who parrot them without understanding, although in this writing itself the distinction is not made” (*ibid.*, p. 80). Schelling is clearly suggesting that Hegel’s criticism is based on a misunderstanding of his own position.

(5.) In the preface to his *Presentation of My System of Philosophy* (1801), which appeared only slightly before Hegel’s *Differenzschrift*, Schelling complains about those who comment on the ongoing debate but are unqualified to do so: “Reinhold declares with the utmost candor that he ‘has never understood, either in the beginning or in the middle, not even shortly before the end (he says *end*) what was the real issue in the latest philosophical revolution.’ Where must it end when such a person—who in the beginning of this ‘Revolution’ was a blind follower of Kant, then in a theory of his own making proclaimed infallible, catholic philosophy, and toward the end gave himself over to the bosom of the *Wissenschaftslehre* (with an equally strenuous protestation of his deepest conviction)—when such a person, after all these proofs of philosophical imbecility, does not lack the courage to again (and as he himself surmises, for the last time) prophesy the ‘present’ end of the philosophical revolution” (cited in F. W. J. Schelling and J. G. Fichte, *The Philosophical Rupture between Fichte and Schelling: Selected Texts and Correspondence [1800–1802]*, translated, edited, and with an introduction by Michael G. Vater and David W. Wood [Albany: State University New York Press, 2012], pp. 143–144). Schelling continues his diatribe

in a very long footnote in which he writes about Reinhold: "Since he has continued to live in profound ignorance of the authentic core of all speculation, naturally nothing seems too grand for his power of judgment" (Schelling and Fichte, *Philosophical Rupture*, p. 144).

(6.) For instance, in the third *Critique*, Kant writes: "For when we analyzed the reflection of the power of judgment in these, we found in them a purposive relation of the cognitive faculties, which must ground the faculty of ends (the will) a priori, and hence is itself purposive a priori, which then immediately contains the deduction, i.e., the justification of the claim of such a judgment to universally necessary validity." Immanuel Kant, *Critique of the Power of Judgment*, trans. Paul Guyer and Eric Matthews (New York: Cambridge University Press, 2000), p. 161.

(7.) See Gotthold Ephraim Lessing, "On the Proof of the Spirit and of Power" (1777), in *Lessing: Philosophical and Theological Writings*, ed. H. B. Nisbet (Cambridge: Cambridge University Press, 2005), pp. 83–88.

(8.) See Isabelle Thomas-Fogiel, *Critique de la représentation: Étude sur Fichte* (Paris: Vrin, 2000).

(9.) See Daniel Breazeale, "Towards a *Wissenschaftslehre* more *geometrico* (1800/1)," in Daniel Breazeale and Tom Rockmore, eds., *After Jena: New Essays on Fichte's Later Philosophy* (Evanston, IL: Northwestern University Press, 2008), p. 40.

(10.) J. G. Fichte, *Nachgelassene Werke*, vol. 2, ed. I. H. Fichte, (Bonn, 1834–1835), p. 195.

(11.) J. G. Fichte, *Wissenschaftslehre 1804* (second series, 1804), in *The Science of Knowing: Fichte's 1804 Lectures on the Wissenschaftslehre*, trans. Walter E. Wright (Albany: State University of New York Press, 2005), p. 107. See also J. G. Fichte, *Die Wissenschaftslehre. Zweiter Vortrag im Jahre 1804* (cited in the text as WL 1804/II), ed. R. Lauth and J. Widmann (Hamburg: Meiner, 1986), p. 138.

(12.) For a detailed study of this text, see Joachim Widmann, *Die Grundstruktur des transzendentalen Wissens nach Joh. Gott. Fichtes Wissenschaftslehre 1804* (Hamburg: Felix Meiner Verlag, 1977). See also Jean-François Goubet, "La phénoménologie de Fichte dans la WL-1804/II: Une approche historique," in *Fichte: La doctrine de la science de 1804*, ed. J.-C. Goddard and A. Schnell (Paris: Vrin, 2009).

(13.) The relation between Husserl and Fichte has been explored in different ways. An early effort, which remains instructive, is Jean Hyppolite, "La doctrine de la science chez Fichte et Husserl," in *Husserl et la pensée moderne*, ed. H. L. van Breda and Jacques Taminiaux (Springer, The Hague: M. Nijhoff, 1960). See also H. Tietzen, *Fichte und Husserl. Letzbegründung, Subjektivität und Praktische Vernunft im transzendentalen Idealismus* (Frankfurt am Main: Klostermann, 1980).

(14.) Hilary Putnam, *Reason, Truth and History*, New York: Cambridge University Press, 1981, p. 216.

(15.) G. W. F. Hegel, *Phänomenologie des Geistes*, in Hegel, *Hegel-Werke in zwanzig Bänden*, vol. 3, ed. Eva Moldenhauer and Karl Rinus Michel (Frankfurt am Main: Suhrkamp, 1971), p. 76.

(16.) The canonical form of this objection, which runs like a red thread throughout Marxism, is formulated by Engels. See Friedrich Engels, *Ludwig Feuerbach and the End of Classical German Philosophy* (New York: International Publishers, 1941).

(17.) See Hegel, *Phänomenologie des Geistes*, p. 78.

(18.) See Hilary Putnam, *Reason, Truth and History*, New York: Cambridge University Press, 1981.

(19.) Putnam later adopted a similar view. See Hilary Putnam, *The Threefold Cord: Mind, Body, and World* (New York: Columbia University Press, 1999).

(20.) See Hegel, *Phänomenologie des Geistes*, p. 181.

(21.) See *ibid.*, p. 179.

(22.) Reinhold's basic claim about Fichte's interpretation is that representations are related both to subject and object, but distinguished from both. Aenesidemus, according to Fichte, objects that the relation of the representation to subject and object is different in each case. Fichte reformulates the same objection in different language as the claim that "the representation is related to the object as the effect to the cause, and to the subject as the accident to substance" (J. G. Fichte. *Fichtes-Werke*, vol. 1, ed. I. H. Fichte [Berlin: Walter de Gruyter, 1971], p. 18). But he disagrees with—in fact, finds unthinkable—Aenesidemus's assumption that the critical philosophy depends on a mind-independent thing in itself; that is, on something independent from a capacity for representation.

(23.) See "Empiricism and the Philosophy of Mind," in Wilfrid Sellars, *Science, Perception and Reality* (Reseda, CA: Ridgeview, 1991), pp. 127–196.

(24.) See Hegel, *Phänomenologie des Geistes*, pp. 77–78.

(25.) See *ibid.*, pp. 76–77.

(26.) See John McDowell, *Mind and World*, p. 83.

(27.) For Hegel as for such later thinkers as Putnam, truth is a limiting, or ideal, concept. See Putnam, *Reason*, p. 216.

(28.) See Hegel, *Phänomenologie des Geistes*, pp. 77–78.

(29.) See, for example, "concept" in Michael Inwood, *A Hegel Dictionary* (Oxford: Blackwell, 1992), pp. 58–61.

(30.) See Matthias J. Schleiden, *Schellings und Hegels Verhältnis zur Naturwissenschaft*, ed. O. Breidbach (Weinheim: VCH, Acta Humaniora, 1844, repr. 1988), p.

(31.) See Karl Popper, *The Open Society and Its Enemies*, vol. 2 (London: Routledge, 1945), p. 25.

(32.) See Bertrand Russell, *A History of Western Philosophy*, (New York: Simon and Schuster, 1945), p. 702.

- (33.) See Herbert Schnädelbach, *Philosophy in Germany 1831–1933*, trans. Eric Matthews (New York: Cambridge University Press, 1984), pp. 76–77.
- (34.) See Edward Craig and Michael Hoskin, “Hegel and the Seven Planets,” *Journal for the History of Astronomy* 23 (1992): pp. 208–210.
- (35.) See G. W. F. Hegel, *Philosophy of Nature*, vol. 2, ed., trans., and with an introduction and explanatory notes by M. J. Petry (London: George Allen and Unwin, 1842), pp. 128–41.
- (36.) See Gerd Buchdahl, “Review of Hegel’s *Philosophy of Nature*,” in *British Journal of the Philosophy of Science* (1972): pp. 257–290.
- (37.) See Gerd Buchdahl, “Hegel’s *Philosophy of Nature* and the Structure of Science,” in Michael Inwood, ed., *Hegel* (New York: Oxford University Press, 1985), p. 110.
- (38.) See G. W. F. Hegel, *Philosophy of Nature*, vol. 1, ed., trans., and with an introduction and explanatory notes by M. J. Petry (London: George Allen and Unwin, 1842), p. 60.
- (39.) See, for example, Sebastian Rand, “The Importance and Relevance of Hegel’s ‘*Philosophy of Nature*,’ ” *The Review of Metaphysics* 61, no. 2 (December 2007): pp. 379–400.
- (40.) See Alison Stone, “Hegel’s *Philosophy of Nature*: Overcoming the Division between Matter and Thought,” *Dialogue* 39 (2000): pp. 725–743.
- (41.) Renate Wahsner stands out as someone who has spent decades studying Hegel’s *Philosophy of Nature* in relation to modern science.
- (42.) See Buchdahl, “Review of Hegel’s *Philosophy of Nature*,” p. 110.
- (43.) Hinman argues that it is absurd to take the largely untrained and rapidly formulated views of Schelling as the peak of *Naturphilosophie*. See Edgar Lenderson Hinman, *The Physics of Idealism* (Lincoln, NE: State Journal, 1906).
- (44.) See, for example, William Thomson (Lord Kelvin) and Peter Guthrie Tait, *Treatise on Natural Philosophy* (Oxford: Oxford University Press, 1867), a textbook that was important for orienting modern physics. The book begins with the observation that “the term Natural Philosophy was used by Newton and is still used in British universities, to denote the investigation of laws in the material world, and the deduction of results not directly observed.” P. v.
- (45.) For this distinction, see chapter 6, “Scientific Revolutions,” in Vyacheslav Stepin, *Theoretical Knowledge*, trans. A. G. Georgiev and E. D. Rumiantseva (Dordrecht: Springer, 2005), pp. 283–341.
- (46.) Immanuel Kant, *Metaphysical Foundations of Natural Science*, trans. and ed. Michael Friedman (New York: Cambridge University Press, 2004), p. 8.
- (47.) See Michael Friedman, *Kant’s Construction of Nature: A Reading of the Metaphysical Foundations of Natural Science* (New York: Cambridge University Press, 2013).
- (48.) Kant, *Metaphysical Foundations*, p. 8.

(49.) See *ibid.*, p. 10.

(50.) *Hegel's Philosophy of Nature: Encyclopaedia of the Philosophical Sciences (1830)*, trans. A. V. Miller (New York: Oxford University Press, 2004), part 2, p. 3.

(51.) "It remains to add some observations on the relations of planetary displacements, which appear to be a matter of experience alone. In truth, they cannot be measures or numbers of nature alien to reason. For our pursuit of the laws of nature, and our knowledge of them, is founded on nothing other than the belief that nature is shaped by reason, and that we are convinced of the identity of all natural laws. Whenever those who seek laws through experience and induction happen upon something that looks like a law, they rejoice at their find and the identity of nature and reason therein, and when other appearances are difficult to accommodate with that they feel some doubt in the earlier experiments and try in every way to establish harmony between the findings. Our topic, the planets' orbits, offers a case in point: While the displacements of the planets suggest an arithmetic progression in which unfortunately, no planet in nature corresponds to the fifth member in the series, it is supposed that there really does exist between Mars and Jupiter, unbeknown to us, a planet moving through outer space. It is now being eagerly looked for." G. W. F. Hegel, *De orbitis planetarum*, trans. from the Latin original by David Healan (Berlin and Yokohama, 2006), <http://www.hegel.net/en/v2133healan.htm>.

(52.) John Findlay, foreword to *Hegel's Philosophy of Nature*, trans. A. V. Miller (Oxford: Clarendon Press, 1970), p. ix.

(53.) Isaac Newton, *The Principia: Mathematical Principles of Natural Philosophy*, trans. I. B. Cohen and Anne Whitman (Berkeley: University of California Press, 1999), p. 382.

(54.) For discussion, see William L. Harper, *Isaac Newton's Scientific Method: Turning Data into Evidence about Gravity and Cosmology* (New York: Oxford University Press, 2011).

(55.) This view is held by Peirce, who studied Kant's writings in detail. "Kant (whom I more than admire) is nothing but a somewhat confused pragmatist" ("Critical common-sensism," in Justus Buchler, *Philosophical Writings of Peirce*, New York: Dover, 1955, p. 299).

(56.) "But hitherto I have not been able to discover the cause of these properties of gravity from phaenomena, and I frame no hypotheses; for whatever is not deduced from the phaenomena is to be called an hypothesis; and hypotheses, whether metaphysical or physical, whether of occult qualities or mechanical, have no place in experimental philosophy. In this philosophy particular propositions are inferred from the phaenomena, and afterwards rendered general by induction." Newton, *Principia*, pp. 442-443.

(57.) Hegel, *De orbitis planetarum*.

(58.) See George Berkeley, "The Analyst" (Dublin, 1734). See also *Hegel's Philosophy of Nature*, vol. 1, trans. and ed. M. J. Petry (London: George Allen and Unwin, and New York: Humanities Press, 1970), p. 351-353.

(59.) J. W. Goethe, *Scientific Studies*, in *Goethe: The Collected Works*, vol. 12, ed. Douglas Miller (Princeton: Princeton University Press, 1995), p. 57.



(60.) See J. W. Goethe, *Goethe's Theory of Colours*, trans. C. L. Eastlake (London: John Murray, 1840), p. xxi.

(61.) See *ibid.*, p. xxv.

(62.) See *ibid.*, §727, p. 287.

(63.) See *ibid.*, §720, pp. 284–285.

(64.) The *Urphänomenon* is Goethe's speculative term for the basic phenomenon from which the other phenomena evolved, as the *Urpflanze* is the plant from which all plants supposedly later evolved. According to Clark Butler in his commentary on the letter quoted above: "Goethe's *Urphänomen* became for Hegel sensory actualizations—or at least analogues—of the abstract schemata of his *Logic*. And Goethean natural science just as Goethean science in turn lends tangibility to the same logical abstractions, is considered inaccessible by Goethe. But he requests the poet's indulgence for philosophy." G. W. F. Hegel, *Hegel: The Letters*, p. 693.

(65.) See *Newtoni Optices* (London, 1706), part 3, p. 314.

(66.) G. W. F. Hegel, *Aesthetics: Lectures on Fine Art*, vol. 1, trans. T. M. Knox (Oxford: Oxford University Press, 1975), p. 24.

(67.) This familiar view is rejected by Jauernig, who sees Kant as ultimately a great defender if not of Wolff, at least of Leibniz. See Anja Jauernig, "Kant's Critique of the Leibnizian Philosophy: Contra the Leibnizians, but Pro Leibniz, Kant and the Early Moderns," in *Kant and the Early Moderns*, ed. Daniel Garber and Béatrice Longuenesse (Princeton, NJ: Princeton University Press, 2008), pp. 41–63.

(68.) See Paolo Perrini, *L'empirismo logico: Aspetti storici e prospettive teoriche* (Rome: Carocci, 2002).

(69.) See G. W. F. Hegel, "Relationship to Skepticism to Philosophy: Exposition of its Different Modifications and Comparison to the Latest Form with the Ancient One," in *Between Kant and Hegel: Texts in the Development of Post-Kantian Idealism*, trans. and annotated by George di Giovanni and H. S. Harris (Albany: State University of New York Press, 1985), pp. 311–362.

(70.) See Hegel, *Phenomenology of Spirit*, p. 80.

(71.) G. W. F. Hegel, *Encyclopedia Logic, Encyclopedia of the Philosophical Sciences*, trans. T. F. Geraets, W. A. Suchting, and H. S. Harris (Cambridge: Hackett, 1991), part 1, p. 7.

(72.) For a Hegelian defense of dialectic, see Jonas Cohn, *Theorie der Dialektik* (Hamburg: Meiner Verlag, 1923).

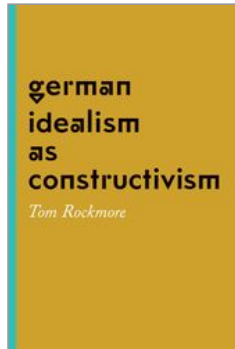
(73.) See Plato, *Republic*, 511 B–C, pp. 184–185, and 533 B–C, p. 205.

(74.) Hegel, *Hegel-Werke*, vol. 18, p. 320.

(75.) For discussion, see H. F. Fulda, *Das Problem einer Einleitung in Hegels Wissenschaft der Logik* (Frankfurt am Main: Klostermann, 1965).

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## German Idealism as Constructivism

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Print publication date: 2016

Print ISBN-13: 9780226349909

Published to Chicago Scholarship Online: January 2017

DOI: 10.7208/chicago/9780226350073.001.0001

## Cognitive Constructivism after German Idealism

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DOI:10.7208/chicago/9780226350073.003.0007

### [–] Abstract and Keywords

German idealism has now receded into history. In part its legacy lives on in cognitive constructivism, which begins before and continues after it. The sixth and final chapter, “Cognitive Constructivism after German Idealism,” considers this approach as an alternative to more familiar intuitive and representational approaches to cognition, not in providing a full treatment—which lies beyond the limits of the present discussion—but rather in sketching the outlines of the kind of argument one might provide. I contend that cognitive constructivism remains a promising alternative to other, better known but perhaps less promising approaches.

**Keywords:** cognitive constructivism, German idealism, cognition, idealism, constructivism

It is doubtful that any single interpretation can bring together the many themes running through the unusually rich German idealist debate. Different interpretations stress different aspects of the debate in this period. This book has argued that cognitive constructivism is central to Kant’s critical philosophy as well to post-Kantian German idealism, hence to German idealism in general.

German idealism has now receded into history. It did not invent, but only reformulates, develops, and illustrates cognitive constructivism, which began before and continues after it. The legacy of German idealism lives on through cognitive constructivism. Constructivist epistemology attracts little attention in the current debate. The Swiss psychologist Jean Piaget—perhaps the most distinguished twentieth-century cognitive constructivist—formulates a theory of genetic epistemology to explain the mental development of children.<sup>1</sup> In place of scientific realism, Van Fraassen’s constructivist empiricism rejects scientific realism by suggesting that our scientific theories are at best only empirically adequate.<sup>2</sup>

Cognitive constructivism is more frequently criticized than studied, but also is frequently rejected, often on superficial grounds.<sup>3</sup> To begin to assess this approach, we must shift the focus from German idealism to the underlying cognitive problem. The interest of this cognitive strategy lies in a possible solution to the Parmenidean form of the cognitive problem, which turns on the normative criterion of metaphysical realism. “Realism”—which refers to the ontological independence of the cognitive object with respect to beliefs, knowledge, conceptual frameworks, and so on—is the dominant element in **(p.168)** the cognitive debate. The type of realism one accepts leads in turn to specific epistemic strategies.

The Western cognitive tradition is determined through an early commitment to what later became metaphysical realism. “Metaphysical realism” is any form of the cognitive claim that knowledge requires a cognitive grasp of reality, or the mind-independent external world as it is, not merely as it appears. Though not under that name, metaphysical realism runs throughout the entire Western tradition at least since Parmenides. His ontological claim that what is, is and cannot not be—hence cannot change—influentially points to the grasp of mind-independent reality as the standard of knowledge. This standard runs throughout the entire later tradition.

Parmenides influences Plato—who adopts the view that to know is to know reality—and through him the later debate. Parmenides’s claim for the identity of thought and being presupposes at least three claims: first, there is mind-independent reality; second, thought (or thinking) can grasp mind-independent reality as it is beyond appearance; and third, when we know, thought in fact grasps mind-independent reality as it is. The second claim can be restated as an identity of (cognitive) identity and (ontological) difference. Since the normative conception of knowledge determines the strategy, acceptance of the Parmenidean criterion of mind-independent reality naturally led to an effort over many centuries to formulate epistemic strategies appropriate for this goal.

There is more continuity than discontinuity between the ancient way of framing the cognitive problem through Parmenidean realism and modern efforts to resolve it. In the ancient tradition, Plato, who identifies two main cognitive strategies, rejects representationalism when featuring intellectual intuition.

The modern debate features numerous efforts to reverse the Platonic rejection of representationalism through a causal theory of perception by linking together an idea in the mind to the mind-independent world. In a causal theory of perception, the idea in the mind is the effect of which the mind-independent world is the cause. Rationalism and empiricism—the two main forms of the new way of ideas—both feature a cognitive relation between ideas and reality. In both cases, cognition depends on the relation of ideas in the mind to mind-independent reality—more precisely, on the backward (or anti-Platonic) inference from the effect to its cause.

Cognitive representation is problematic since there seems to be no way to know that representations match up with, correspond to, or otherwise **(p.169)** correctly represent the cognitive object. The main criticism is simple but devastating. If access to the cognitive object is possible only through representation, then there is no way to know how a representation relates to what it represents, hence no way to argue for the success of a representational approach to knowledge. This criticism, which seems to vindicate Plato’s rejection of the backward inference from effect to cause, undermines any and all modern forms of representationalism.

Kant, who uses representational language, is apparently unable to decide between representationalism and constructivism. He rejects intellectual intuition (which Plato favors) while formulating a constructivist approach to cognition, which is incompatible with any form of cognitive representation. Yet he never directly considers epistemic foundationalism, which is the main modern cognitive innovation.

In the modern debate, skepticism, foundationalism, and metaphysical realism are closely linked. Foundationalism—which exploits the analogy between a building, which is constructed on supposedly unshakeable foundations, and the correct epistemic strategy—is a peculiarly rigorous form of the causal theory of perception invoked to avoid skepticism in arguing for indefeasible cognitive claims. “Epistemic foundationalism” refers to any strategy for knowledge based on an initial principle or set of principles known to be absolutely certain. Modern foundationalism aims to overcome skepticism through metaphysical realism in meeting the Parmenidean standard.

When foundationalism comes into the tradition depends on what one understands it to be. Plato’s suggestion that mathematics and natural science depend on first principles, whose truth can be grasped through dialectic, is perhaps an early form of foundationalism. According to Aristotle, to avoid either an infinite regress or circular reasoning, the premises on which demonstration is based must either be demonstrable or not require demonstration, since in their role as first principles they cannot be demonstrated but are self-evidently true.

Aristotle argues that there must be such principles in order to have knowledge, which Descartes undertakes to demonstrate through his conception of the cogito. In comparison, Descartes can be said to improve on the Aristotelian approach in identifying a cognitive first principle, or foundation for cognition.

Geometry depends on axioms or postulates whose truth is assumed for purposes of demonstration in order to deduce theorems. Descartes takes the geometrical model further in making apodictic claims for knowledge. According to Descartes, there is a single foundationalist principle, or unshakeable **(p.170)** Archimedean point, known to be true, and from which the remainder of the theory can be rigorously deduced. If a theory is rigorously deduced from a principle known to be true, then the theory is also true.

The deceptively simple Cartesian foundationalist cognitive approach is theoretically interesting but difficult to defend. This model depends on a causal theory of perception to argue from an idea in the mind to the mind-independent external world. The key argument suggests that if the cogito exists, then at least some of its ideas are also true. In this respect, Descartes makes a famous two-step argument. First, the cogito necessarily exists, since its existence cannot be denied. Second, clear and distinct ideas are true since God would not deceive me, and we can further reliably determine which ideas in the mind are true.

This argument has generated an enormous debate. Beginning with Arnauld, commentators often suggest that the Cartesian argument is undermined by the so-called Cartesian circle. This criticism consists in pointing out that Descartes appears to rely on the existence of God, which he has not yet demonstrated, to infer clear and distinct ideas are true. Descartes’s most important response is that clear and distinct ideas do not depend upon God to validate them. Suffice it to say that the argument about the Cartesian circle has never been decided. Other

criticisms include the revival of circular demonstration and attention to the distinction between certainty and truth.

In the twentieth century, a new form of foundationalism emerged in the Vienna Circle. According to Carnap's protocol theory, sentences about physical objects are not translated into sense data but into protocol sentences in order to weave a seamless web between immediate experience and natural science. Carnap's initiative quickly led to a complex debate with Neurath, Quine, and later others, including Rorty. Neurath's objection that there were in fact no protocols impelled Carnap to reformulate his position in ideal language. This was opposed by Quine's denial of the basic Kantian distinction between analytic and synthetic propositions in shifting toward holism. Following Quine, Davidson and Sellars each separately criticize foundationalism. Davidson refutes empiricism on the grounds that a belief can only be grounded through another belief; Sellars influentially attacks the so-called myth of the given. Rorty, who seems to take analytic foundationalism as the standard of knowledge, argues against the pervasive idea of knowledge understood from a Baconian perspective as a so-called mirror of nature.

Scientific realism functioned for a time as a successor to the Parmenidean approach. It was featured under the influence of the Vienna Circle positivists **(p.171)** in the first half of the twentieth century. Scientific realism, which presupposes a basic distinction between the so-called folk view and the view of modern natural science, suggests that only natural science describes the world as it is. This approach quickly assumed a dominant role after Carnap, Reichenbach, Hempel, and others came to the US. It just as quickly lost interest through the increasingly widespread disaffection with such related positivist doctrines as reductionism, physicalism, verificationism, and so on. Few if any thinkers currently accept Vienna Circle positivism in its original form. Yet the strong realism on which it insisted is still widely accepted as the standard of empirical knowledge, despite the evident inability to formulate a convincing argument for knowledge of mind-independent reality.

The shift away from foundationalism in the mid-twentieth century did not diminish the interest in metaphysical realism. Kant, who relies on the results of experience, justifies the Copernican turn through the fact that no progress has ever been made toward metaphysical realism. Yet this fact seems not to discourage those interested in metaphysical realism, who strive toward knowledge of the mind-independent real as it is.

The Parmenidean view that to know means to grasp the mind-independent real remains popular in recent debate. Thus Frege thinks that absolute ontological permanence is a necessary condition of cognition.<sup>4</sup> Dummett holds that anti-realists, who cannot guarantee the truth-value of every sentence, must deny bivalence.<sup>5</sup> According to Boghossian, there is in fact a way the world is and we can know it.<sup>6</sup> None of these claims surpasses Platonic realism about universals. Now as in Kant's time, the difficulty remains the same. If we admit we cannot intuit, represent, or found claims to know reality as it is, we must either make cognitive claims while abandoning any pretense of knowing reality or accept skepticism. This problem is not alleviated if we suppose there is a way that things are in independence of us and that knowledge requires us to know them as they are. The traditional approach, which lies in adopting metaphysical realism as our standard, fails in practice. For no one in the tradition of Western philosophy has ever formulated a convincing argument to show that we can grasp the mind-independent real. Now as in Kant's time, the most promising alternative is a constructivist approach that, in turning away from metaphysical realism, takes empirical realism as its cognitive standard.

Kant rejects intellectual intuition and representation, hence metaphysical realism, before embarking on the Copernican turn. We might now—some two centuries after Kant—desire to appeal to more recent cognitive approaches. There is no way to anticipate philosophical ingenuity. Yet we can dismiss any **(p.172)** version of the claim to cognize reality. Plato, who seems to equate cognition with knowledge of reality, apparently suggests that philosophers can see, hence cognize, reality, or that this must be the case if there is to be knowledge. Yet there does not seem to be any way to cognize reality. Related claims—such as the regularity of experience, or the ability to predict experience—do not show that we in fact grasp reality.

Cognitive constructivism, which follows the Kantian suggestion that objects must conform to the mind, avoids skepticism deriving from the failure to cognize reality. This suggestion offers an approach to knowledge without imposing the impossible Parmenidean standard. Though constructivism is the most promising among current approaches to cognition, it appears unacceptable for two reasons: it directly contradicts the venerable effort stretching back to the origins of the Western tradition to cognize the world as it is, and it is often described in imprecise ways—or at least in ways that do not directly relate to the problem of cognition. For instance, Rawls, who appeals to “constructivism” in his moral theory, never defines the term, which in turn undermines his own position as well as this general approach.<sup>7</sup>

Kant identifies an important argument for constructivism by noting that the effort to know mind-independent reality has not progressed. If this is correct, then the current interest of cognitive constructivism seems to be threefold: first, since we cannot show we know reality as it is, this goal remains regulative but cannot be constitutive; second, constructivism is useful in enabling us to avoid epistemic skepticism; and, third, constructivism correctly describes cognitive praxis.

The first argument has already been made. Since there is more than one possible cognitive standard, the second argument obviously depends on how one characterizes it—theories of cognition rely in all cases on an account of what counts as knowledge. This argument depends on accepting a revision of the widespread normative philosophical conception of knowledge. The Parmenidean view that cognition requires the identity of thought and being has often been interpreted as mandating indefeasible claims to know. We can distinguish between the many forms this argument has already taken and the underlying normative commitment to an ahistorical conception of knowledge.

The Western philosophical debate centers on an ongoing search, spanning the entire tradition, for cognitive rigor. In ancient philosophy, this commitment motivates the Socratic search for ethical universals, through the distinction between knowledge and opinion, the Platonic view of philosophy as the science of sciences, capable of justifying itself through dialectic, anhypothetical, Aristotelian essentialism, and so on. The modern debate features such cognitive **(p.173)** approaches as representationalism as well as cognitive foundationalism. In our day, the commitment to rigorous cognition, illustrated by the Husserlian conception of philosophy as rigorous science, takes many forms. They include: scientific empiricism; logicism, or the reduction of mathematics to logic; semantics, or the problem of reference further linked to the analysis of language; scientism, or the view that natural science provides the most authoritative—or in a more extreme version, perhaps the only authoritative worldview; and so on.

Efforts to formulate a rigorous epistemic theory often approach cognition as ahistorical, beyond time and place, unrelated to opinion, unrelated to the historical moment, unrelated to

subjectivity of any kind, and so on. The identification of cognitive rigor with a supposed ahistorical status is obviously intended to drive a wedge between cognition and history. Thus Kant notoriously claims the critical philosophy—which none of his contemporaries accepted without modification, and which Kant hastened to revise—would never require revision.

The widespread conviction that cognitive rigor is possible if and only if the cognitive object is unchanging leads to ahistorical cognitive claims. Thus Husserl likens historicism of any kind to cognitive relativism, hence to skepticism. Yet mind-independent reality—which ahistorical thinkers among us often presuppose—is a historical construct embedded in a theory of knowledge. The Higgs boson, for instance, is meaningful only within the conceptual framework of the standard view of matter. There is clearly nothing ahistorical about this subatomic particle, which literally depends on the theory for its existence.

The normative conception of ahistorical knowledge, which comes to us from ancient Greece, is one of the most hallowed philosophical traditions. The ancient dream of a final philosophical account of cognition partly depends on philosophical vocabulary. The familiar dualism between appearance and reality falsely suggests there is a way that reality is, and even that it can be known as it is. Yet “reality” is not independent of, but rather depends on the theory about it. There is simply no reason—other than the long-standing conviction that we know or ought to strive to know reality beyond change—to support the commitment to a normative view of cognition as ahistorical, hence as “unrevisable.” Though there is clearly a longing for a halcyon ultimate resting place beyond the tradition where things will never change (in short, a final scientific theory), there is also no reason—none at all, since we cannot compare our theories of reality to reality—to think that we are almost there, or are even getting closer to grasping it. We do not now know, and there seems to be no reason to think we will ever know, that we are, or perhaps later might be able to, carve **(p.174)** nature at the joints. If history is our guide, there is no reason to think we will ever realize the dream of a final theory, which, hence, is regulative but cannot be constitutive.

The third point is the claim that constructivism correctly describes the cognitive process. Constructivism applies a version of the familiar scientific hypothetico-deductive model to cognition in general. The central assumption is that cognition depends on the experimental construction of a theory about the contents of consciousness. We examine our theory through further experience, and we modify it as needed. Scientific inquiry proceeds by formulating a hypothesis, which is then tested against experience; if it is falsified, is regarded as false. Constructivist cognitive claims, like other scientific claims, are not subject to confirmation but are fallible, hence subject to refutation.

A constructivist approach avoids a number of common but indemonstrable cognitive claims. Thus it makes no assumption that through the cognitive process we are getting at the real—or indeed, anything beyond the contents of consciousness. It further admits revisability in turning away from the familiar claim for apodicticity. And it neither claims to cognize nor seeks to cognize what does not change, hence lies beyond time and history.

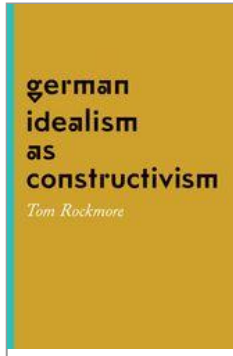
Philosophy is, like other forms of cognition, a historical enterprise. It builds on prior efforts to resolve, solve, or at least come to grips with ongoing concerns. The implicit suggestion that philosophy only finally begins and in fact ends in the critical philosophy is clearly mistaken. Kant’s considerable achievement does not lie in bringing the debate to a close. It rather lies in reformulating a powerful constructivist approach to cognition. Constructivism is central to Kant, central to post-Kantian German idealism—hence to all forms of German idealism—and central to

the cognitive problem after German idealism. Now as in Kant's day, constructivism answers Plato's reaction to Parmenides. Metaphysical realism—or in some views, realism tout court—reiterates the ancient but impossible Platonic conviction that cognition is cognition of reality. This theoretical claim in practice gives way to the view, central to German idealism and to selected later thinkers, that we know only what we in some sense construct.

### Notes:

- (1.) The first mention of constructivist epistemology apparently occurs in his book, *La Construction du réel chez l'enfant* (Neuchâtel and Paris: Delachaux et Niestlé, 1937). His approach, which is expounded in a large body of work, reaches a peak in "Nature et méthode de l'épistémologie," in Jean Piaget, ed., *Logique et connaissance scientifique* (Paris: Gallimard, 1967), pp. 1-132.
- (2.) Bas van Fraassen, *The Scientific Image of the World* (Oxford: Oxford University Press, 1980), p. 12: "Science aims to give us theories which are empirically adequate; and acceptance of a theory involves as belief only that it is empirically adequate."
- (3.) See, for example, Ilkka Niiniluoto, "Realism, Relativism, and Constructivism," in *Synthese* 89, no. 1 (October 1991): pp. 135-162. Niiniluoto's critique is typical. He concentrates on the so-called Strong Programme of Bloor and Barnes as well as the constructivism of Knorr-Cetina, which he regards as related. Following Moore, he believes that idealism denies the existence of the external world (see *ibid.*, p. 144). He assumes but does not demonstrate that constructivism and scientific realism are incompatible. His main point is that the constructivist approach is comparatively less plausible than "the alternative realist account, which explains consensus by the pre-existence of mind-independent real entities" (*ibid.*, p. 135).
- (4.) Frege has this to say about historical investigations: "The historical approach, with its aim of detecting how things begin from which to understand their nature, is certainly legitimate; but it also has its limitations. If everything were in continual flux and nothing remained fixed for all time, there would no longer be any possibility of getting to know anything about the world and everything would be plunged into confusion. We suppose, it would seem, that concepts sprout in the individual mind like leaves on a tree, and we think to discover their nature by studying their birth: we seek to define them psychologically, in terms of the nature of the human mind. But this account makes everything subjective, and taken to its logical conclusion, abolishes truth. What is known as the history of concepts is really either a history of our knowledge of concepts or of the meanings of words. Often it is only after immense intellectual effort, which may have continued over centuries, that humanity at last succeeds in achieving knowledge of a concept in its pure form, in stripping off the irrelevant accretions which veil it from the eyes of the mind." Gottlob Frege, introduction to *The Foundations of Arithmetic* (Oxford: Basil Blackwell, 1980), p. vii.
- (5.) See Michael Dummett, "Realism," repr. in *Truth and Other Enigmas* (Cambridge, MA: Harvard University Press, 1978), pp. 145-165.
- (6.) He has in mind the supposedly intuitive view that "there is a way things are that is independent of human opinion, and that we are capable of arriving at belief about how things are that is objectively reasonable, binding on anyone capable of appreciating the relevant evidence regardless of their social or cultural perspective." Paul A. Boghossian, *Fear of Knowledge: Against Relativism and Constructivism* (Oxford: Clarendon Press, 2006), p. 131.
- (7.) See, for example, Russian artistic constructivism.





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Print publication date: 2016

Print ISBN-13: 9780226349909

Published to Chicago Scholarship Online: January 2017

DOI: 10.7208/chicago/9780226350073.001.0001

### (p.195) Index

absolute, the:

- Fichte's subjectivity and, 70–72, 85, 90, 95;
- Hegel on, 98–99, 104, 109–12, 121–22, 145–47, 157–59;
- identity and, 96–101;
- Kant's use of, 85;
- Schelling on, 80, 85–86, 88–91

Adickes, Erich, 18

Aenesidemus, 54, 190n22

aesthetics, 12–15, 60, 65. *See also Critique of the Power of Judgment* (Kant); philosophy of art  
*Aesthetics: Lectures on Fine Art* (Hegel), 89

Allison, Henry, 18–21

Ameriks, Karl, 21, 41

analytic philosophy, 2, 140. *See also* Vienna Circle

anthropology, 22, 60

*Anthropology* (Kant), 23

appearance:

- art and, 13–14;
- double-aspect thesis and, 19–20;
- Kant and, 178nn11–12;
- Platonic ontology and, 6–7, 11–12, 14, 34;
- representationalism and, 19–21. *See also* empiricism; noumenon; phenomenology; representationalism

Aristotle, 26, 34, 48, 57, 64, 80, 114, 116–17, 120, 131, 138–40, 146–47, 169, 172

Arnauld, Antoine, 170, 177n5

astronomy. *See* Copernicus, Nicolaus; Kepler, Johannes; natural science; Newton, Isaac

atheism controversy, 46–47, 62, 93

*Attempt at a New Theory of the Human Capacity for Representation* (Reinhold), 46

*Attempt at a Transcendental Philosophy* (Maimon), 50

Augustine, 179n25

Bachelard, Gaston, 7

Bacon, Francis, 15

Bardili, G. C., 43, 46–47, 101

Beck, Jacob Sigismund, 40, 45

becoming, 157–60, 193n4

being:

becoming and, 157–60, 193n4;

Heidegger on, 2, 158;

identity in difference and, 5–6, 11, 35–39, 90, 105–6, 115–22;

Schelling on, 84–86, 176n11

Beiser, Frederick, 3, 19, 61

Berkeley, George, 2, 4, 15, 130, 141–42

biology, 116–18. *See also* natural science

Bloom, Harold, 76

Boghossian, Paul, 171, 193n6

*Bounds of Sense, The* (Strawson), 18

B preface, 18–19, 32, 45–46

Buchdahl, Gerd, 113–14

**(p.196)** Burnyeat, Myles, 4

Butler, Clark, 192n64

calculus, 123, 130

Carnap, Rudolf, 170–71

Cassirer, Ernst, 44, 117

categories:

Hegel's updating of, 155–56, 165–66;

Kant's epistemology and, 35–39, 102–3, 134–36, 143–44. *See also* cognition; constructivism (cognitive); subjectivity

causal theories:

Fichte and, 66–72, 97–98;

Humean skepticism and, 23;

Kant's upholding of, 20, 23, 58, 66–67, 81;

of perception, 17–18, 106;

Schelling on, 90–91

*Characteristics of the Present Age, The* (Schelling), 87

circularity, 9–10, 48–63, 145–46, 160–66

Clarke, Samuel, 117

cognition:

anthropological approaches to, 22, 60–63;

causal theories and, 17–18, 20, 23, 58, 66–67, 81, 106;

circularity and, 9–10, 48–63, 145–46, 160–66;

Copernican revolution and, 1–3, 6, 8, 22–36, 60, 90–91;

Hegel on, 102–4, 120–22, 152–66;

intuition and, 7, 10–12, 16, 20–22, 31–34, 51, 147–48, 171–72;

metaphysical realism and, 4–6, 83–84, 112–13, 138–51, 156–57, 167–74, 193n2;

objects of, 4–5, 7, 12, 16–21, 59–62, 103, 109–11, 115, 134–59;

representationalism and, 7, 10, 13–21;

subject-centered views of, 8, 22–24, 36–39, 66–76, 78–80;

the understanding and, 15, 20, 35–37, 55, 73–75, 79, 119, 142–47, 150–57. *See also* constructivism (cognitive);

epistemology; identity; objects; phenomenology; subjectivity

color theory, 130–33

concepts, 21, 108–12, 116, 119, 139–40, 149, 152–59

*Concerning the Foundations of the Elementary Philosophy* (Reinhold), 46

constructivism (cognitive):

after idealism, 167–74;

circularity and, 9–10, 48–63, 145–46, 160–66;  
Copernican turn and, 7, 18, 22–36, 60, 102–3;  
definitions of, 1–2, 8, 29–30, 58, 79;  
Fichte’s version of, 58–72;  
Hegel and, 92–93, 108–22, 133–59;  
identity of identity and difference and, 11–12, 35, 58–63, 77–78, 89–91, 94–95, 97–101, 103–4;  
Reinhold’s work and, 41–50;  
representationalism’s inconsistency with, 15–21;  
Schelling on, 78–80, 89–91, 98–99. *See also* cognition; epistemology; objects; subjectivity

*Contributions to the Correction of Previous Misunderstandings of Philosophers* (Reinhold), 46

Copernican revolution:

in cosmology, 12, 24–28, 103, 123, 179n27;  
definitions of, 7, 24, 60;  
Fichte’s furthering of, 62–66;  
Hegel and, 92–93, 138, 163–64;  
in Kant’s thinking, 3, 18, 21, 26–27, 29–36, 90–91, 103, 171–72;  
Reinhold on, 45–46;  
Schelling and, 82–84;  
scholarship on, 24–25. *See also* epistemology; and specific thinkers

Copernicus, Nicolaus, 3, 19, 25, 33–34, 130

correspondence theory of truth, 35, 103, 110, 168–69

Cotes, Roger, 27

critical philosophy:

dogmatism and, 4, 48, 94–96, 116, 125, 136;  
double-aspect thesis and, 16–21;  
Fichte’s interpretation of, 61–66, 72–78, 95;  
Hegel on, 93, 134–51;  
idealism and, 1–2, 58–63;  
Maimon’s reading of, 9, 40, 50–55, 63;  
philosophy of nature in, 80, 83–84;  
skeptical responses to, 44, 59;  
spirit of, 61–63. *See also* constructivism (cognitive); holism; Kant, Immanuel

*Critique of Practical Reason* (Kant), 65

*Critique of Pure Reason* (Kant):

B preface to, 18–19, 32, 45–46;  
Fichte on, 40, 43–44, 50–51, 58–66, 73–78;  
Heidegger on, 25;  
Reinhold on, 41;  
representation in, 7, 15–16, 18, 106–7, 178nn11–12;  
reviews of, 2, 43, 94;  
transcendental deduction in, 8, 22–24, 36–39, 60

*Critique of the Power of Judgment* (Kant), 12–13, 65, 88, 118, 141, 146, 188n6

*Critiques of All Revelation* (Fichte), 58

**(p.197)** *Darstellung* (Fichte), 105

Deleuze, Gilles, 5

*De revolutionibus orbium coelestium* (Copernicus), 25

*Der Deutsche Merkur*, 45

Descartes, René, 15, 22–23, 32–33, 41–42, 49, 59, 66–71, 84, 101–2, 107, 117, 126–27, 138, 149–60, 169–70

Dewey, John, 7

dialectical, the, 133–36, 144–59

difference:

Deleuze on, 5;

identity of identity and difference and, 11–12, 34–35, 77–78, 89–91, 94–101, 103–4, 144–51, 163–64;

ontological, 35. *See also* being; Hegel, G. W. F.; identity; objects; subjectivity

*Differenzschrift* (Hegel), 9–10, 44, 59, 79, 93–95, 99–101, 111, 115, 142, 144–45, 148, 155, 157, 160–63

*Dissertation* (Hegel), 119–20, 122–23, 125, 127–29, 132–33, 191n51

dogmatism, 4, 48, 60–62, 72, 84–87, 94–96, 116, 125, 136–37

double-aspect thesis, 8–9, 16–21

Einstein, Albert, 32

elementary philosophy, 41–50

empiricism:

Hegel on, 123–33, 139–42, 145–46, 148, 160;

Kant and, 11;

realism and, 107–8, 168;

representationalism and, 15–16, 22;

Schelling and, 83–84;

subject's passivity and, 23–24

*Encyclopedia* (Hegel), 9–10, 104, 114–16, 123, 137, 142, 148, 152, 157, 160

Engels, Friedrich, 2

epistemology:

backward inference and, 7, 11–12, 15, 17, 37–38, 168–69;

circularity and, 9–10, 48–63, 145–46, 160–66;

constructivist strategies and, 1–2, 11–12, 18–21, 36–39, 108–11, 159–74;

empiricism and, 2, 11, 15–16, 22–24, 68, 83–84, 107–8, 123–33, 139–48, 160, 168;

fallibilist approaches to, 28, 123, 126–27, 174;

first principles and, 28, 48–51, 54–57, 68, 101–4, 134–35, 160–66, 170–71;

foundationalism and, 41–43, 45, 47–49, 52–57, 68, 101–4, 107, 156–57, 160–66, 169–70, 185n6;

Hegel on, 107–11, 114–22, 137–51;

history and, 108–11, 173–74;

intuition and, 7, 10–12, 16, 20–22, 31–34, 51, 86–87, 100, 147–48, 171–72;

Kant and, 31–34, 48–51, 109–10, 151;

realism and, 4–6, 83–84, 112–13, 138–51, 156–57, 167–74, 193n2;

representationalism and, 7, 13–21, 30, 73–76;

skepticism and, 2, 22–23, 44, 48, 54–55, 154–55;

subject-centered views of, 23–24, 59–63, 105–7. *See also* specific thinkers and works

Erdmann, Johann Eduard, 44

Eschenmayer, Adam Karl August von, 83, 98

*Essay on Transcendental Philosophy* (Maimon), 50–51

Euclid, 42

Ewing, A. C., 24, 179n28

experience:

categorical approaches to, 16, 66–72, 94–95, 143–44;

Fichte and, 66–72;

Hegel on, 107–11, 120–22, 125–26, 140;

Kant's constructivism and, 24–25, 29–36, 171;

Maimon on, 184n57;

sense data and, 15–16, 22, 35–36, 123–24, 140, 156–57

*Faith and Knowledge* (Hegel), 142, 147–48

fallibilism, 28, 123, 126–27, 174

*Fernere Darstellung* (Schelling), 86

Feyerabend, Paul, 8

Fichte, Johann Gottlieb:

deduction of representation and, 73–76;

German idealism and, 1–3;

Hegel and, 9–10, 92–101, 104–7, 110–12, 119, 143, 160, 164–66;

Husserl and, 189n13;

Kant's relation to, 23, 40, 43–44, 50–51, 58–66, 73–75, 77–78, 87, 97–98, 111–12, 141–42;

Maimon and, 9, 50–51;

phenomenology of, 64, 105–7;

Reinhold and, 8, 41, 43, 46–47, 49, 57, 68, 157, 161, 190n22;

Schelling and, 9, 60, 76–81, 84–91, 93–101, 119;

speculative dimension of, 96–97;

the subject and, 8, 58, 61, 66–72, 164, 185n6

Findlay, John, 121

**(p.198)** *First Outline of a System of Philosophy of Nature* (Schelling), 82

first principles:

antifoundationalism and, 54–57, 68, 101–4, 134–35, 160–66, 170–71;

circularity and, 9–10, 48–63, 145–46, 160–66;

Kant's metaphysics and, 41–42;

Maimon on, 51;

nature as, 81–84;

scientific knowledge and, 28, 48–49, 52–53, 170–71

Fischer, Kuno, 44

form:

categories and, 35–36;

Hegel on, 141–43, 146, 149, 151, 158–59, 163–64

form theory (of Plato), 6, 903

foundationalism, 9, 41–57, 101–4, 107, 156–57, 159–66, 169–70, 185n6

*Foundations of the Science of Knowledge* (Fichte), 58, 67–68, 85, 90

Franks, Paul, 3, 61

freedom (of the subject), 20, 65, 73–76, 82, 97

Frege, Gottlob, 5, 35, 181n53, 193n4

*Freiheitsschrift* (Schelling), 9

French Revolution, 64, 187n24

Friedman, Michael, 24, 118

Galileo Galilei, 15, 26–27, 30–31, 126–27, 129

Garve-Feder review, 2, 43, 94

*General Deduction of the Dynamic Process* (Schelling), 79

geometry, 31–32, 34, 37, 42, 169–70

German idealism. *See* constructivism (cognitive); epistemology; idealism; philosophy of nature; *and specific thinkers and works*

Goethe, Johann Wolfgang von, 51, 84, 128, 130–32, 192n64

gravitation, 27–28, 32, 118, 123–24, 127, 132–34, 191n56

greater *Logic* (Hegel), 10, 134–35, 147, 152, 161–62

*Groundwork of Metaphysics* (Kant), 23

Guyer, Paul, 18, 21

Habermas, Jürgen, 49

Hamann, Johann Georg, 40, 143  
 Hartmann, Nicolai, 44  
 Hebbeler, James, 45  
 Hegel, G. W. F.:  
     aesthetics of, 89;  
     constructivism of, 92–93, 106–22, 133–66;  
     death of, 2;  
     dialectics of, 133–36, 144–51;  
     Fichte and, 9–10, 66, 93–95, 104–7, 111–12, 119, 160, 164–66;  
     idealism membership of, 1–3, 9–10;  
     identity thesis and, 5–6, 92, 103–4, 144–51, 163–64;  
     Kant and, 9–10, 59, 92–95, 107–12, 115, 117, 122, 136–51, 160, 163–64;  
     logic of, 134–36, 151–59;  
     Maimon and, 9;  
     Newton and, 8, 28–29, 102, 118–19, 121–34, 140, 191n51;  
     phenomenology and, 64, 104–7, 109–12, 115–16, 120–24, 134, 138–39, 145–51, 161–66;  
     philosophy of nature and, 112–22;  
     Reinhold and, 8, 44, 47–48, 93, 96, 101–4, 148, 156, 160–61;  
     Schelling and, 9–10, 77, 79, 92–95, 115, 117, 188n4;  
     speculation and, 96–97, 100;  
     subjective/objective idealism and, 82–83, 107–11, 164–66. *See also specific works*  
 Heidegger, Martin, 2–3, 25, 35, 105, 176n9, 176n20  
 Heine, Heinrich, 78  
 Heraclitus, 157–59  
 Herder, Johann Gottfried, 40, 45, 82, 187n24  
 Herz letter, 7, 13, 49–50, 69, 90  
 Hinman, Edgar Lenderson, 115, 191n43  
 Hintikka, Jaako, 180n46  
 history:  
     Hegel on, 28, 84–89, 94–95, 107–12, 136–38;  
     Kant's ahistoricity and, 38–39, 94, 173;  
     metaphysics' view of, 5–6, 28, 83–84, 112–13, 138–51, 156–57, 167–74, 193n2;  
     scientific revolutions and, 25–28  
*History of Philosophy* (Hegel), 122–23, 133, 142  
 Höffe, Otfried, 24  
 Hölderlin, Friedrich, 92–93, 185n6  
 holism:  
     circularity and, 9–10, 48–63, 145–46, 160–66;  
     Greeks and, 116;  
     Hegel and, 102–4, 134–36, 138–39, 145–46, 154–59, 162–66. *See also* whole, the  
 Hooke, Robert, 123  
 Horstmann, Rolf-Peter, 2, 92, 175n4  
 Hume, David, 4, 15, 23, 48, 124, 141–44, 151  
**(p.199)** Husserl, Edmund, 18, 28, 38, 60, 105–6, 129, 164, 173, 189n13  
 Hyppolite, Jean, 189n13  
 idealism:  
     cognition's role in, 3, 18, 77–80, 112–22, 167–74;  
     definitions of, 2–3, 58–59, 77–78;  
     Fichte's constructivism and, 58–63, 66–76, 185n8;

Hegel's work and, 1–3, 9–10, 96–97, 100, 109–11, 119–22, 138–39;  
identity of identity and difference and, 36–39, 69–76, 97–101, 109–11;  
Kant and, 85–86, 111–12;  
philosophy of nature and, 78–84, 90–91, 98, 112–22;  
Platonic, 5–7;  
Reinhold's work and, 41–50;  
Schelling and, 1–3, 9, 76–77, 90–91, 176n9, 185n8;  
subjective/objective distinction in, 82–83, 97–101, 107–11, 119–22, 138–39

*Ideas for a Philosophy of Nature* (Schelling), 82

*Ideen zur Philosophie der Menschheit* (Herder), 47

identity:

of cause and effect, 17–18, 23, 58, 66–67, 81, 106;  
definitions of, 34–35;  
Fichtean subjectivity and, 69–72, 83;  
Hegel on, 95–101, 106–7, 109–12, 133–36, 157–59;  
of identity and difference, 5–6, 9, 11, 34–39, 69–77, 81–84, 88–89, 94–95, 103–4, 109–11, 119–22, 144–51, 163–64;  
mind-brain, 5, 35, 90–91;  
monism and, 9, 76, 81, 86, 98;  
Schelling on, 77–78, 80–84, 89–91. *See also* Copernican revolution; *and specific thinkers*

imagination, 73–74

immanence, 115, 149

immediate knowing, 148–49, 157, 160

*Inaugural Dissertation* (Kant), 177n1

indirect proof (in mathematics), 33, 93, 138–39

intuition, 7, 10–12, 16, 20, 22, 31–34, 51, 86–87, 100, 147–48, 171–72

Jacobi, Friedrich Heinrich, 40, 47, 51, 89, 143, 147–48

James, William, 7

*Jäsche Logic* (Kant), 15, 22–23, 60

judgment (Fichte's), 75. *See also* aesthetics; constructivism (cognitive)

Kant, Immanuel:

Copernican revolution and, 3, 7–8, 25–36, 60, 171–72, 179n27;  
Descartes and, 32–33, 41–42;  
experience and, 24–25, 29–36, 109–10, 171;  
Fichte and, 58–66, 73–75, 77–78, 87, 97–98, 111–12, 141–42;  
foundationalism and, 48–51;  
Hegel and, 9–10, 92–95, 102–3, 107–12, 115, 117, 122, 136–51, 160, 163–64;  
identity theory of, 35–36;  
intuition and, 7, 11–12, 31–34;  
Maimon and, 9, 52–53;  
mathematics and, 31–34, 37, 39, 180n46;  
moral theory of, 11–13, 20–21, 23, 65, 141, 146–47, 177n1;  
Newton and, 8, 25–29, 39, 117–19, 122–23, 130;  
on Plato, 3–4, 6, 11–12, 16–17, 21, 32, 34, 118, 177n1;  
Reinhold and, 41–52;  
representationalism and, 7, 11–16, 68–69, 107, 169;  
Schelling and, 77, 79, 83–87, 89–91, 142;  
scholarship on, 1–12, 18–19, 24–25;  
Schopenhauer and, 1–2;  
Schulze on, 54–57;

skepticism and, 54–57;  
 subjectivity and, 22–24, 67, 121. *See also* cognition; epistemology; history; idealism; metaphysics; *and specific works*  
 Kelly, Michael, 175n2  
 Kepler, Johannes, 28–29, 123–28, 133  
 knowledge. *See* epistemology  
 Kroner, Richard, 43–44  
 Krug, Wilhelm Traugott, 5  
 language, 5, 101–2  
 law of noncontradiction, 57  
 law of the excluded middle, 33, 138–39  
*Lectures on the History of Philosophy* (Hegel), 44, 122–23, 133, 142  
 Leibniz, Gottfried Wilhelm, 4, 11, 35, 48–49, 60, 90–91, 117, 130, 133, 138, 192n67  
 lesser *Logic* (Hegel), 10, 124, 134–35, 152, 158, 160, 162  
*Letters on the Kantian Philosophy* (Reinhold), 42–50  
 Liebmann, Otto, 59  
**(p.200)** Locke, John, 14–15, 48, 60, 133, 140, 142, 148, 159–60, 178n6  
 logic:  
     being and, 159–60;  
     the dialectical and, 134–36;  
     empiricism and, 140, 149;  
     Hegel’s antifoundationalism and, 160–66;  
     logical positivism and, 170–71;  
     mathematics and, 101–4, 173;  
     philosophy of nature and, 112–22  
 Maimon, Salomon, 1–2, 8, 18, 40, 50–55, 63, 143, 184n57  
 Marx, Karl, 1–2, 23, 64, 108, 175n1  
 mathematics:  
     constructivism and, 7, 31–32;  
     Kantian metaphysics and, 32–34, 37, 39;  
     logic and, 101–4, 173;  
     sciences and, 26–27, 31, 123–27, 130–33, 169–70, 180n38  
 McDowell, John, 110, 140  
*Metaphysical Foundations of Natural Science* (Kant), 31, 114, 118  
 metaphysics:  
     completions of, 50–57, 61–63;  
     double-aspect thesis and, 16–21;  
     first principles and, 28, 48–49, 51–57, 68, 101–4, 134–35, 160–66, 170–71;  
     metaphysical deduction and, 36–39;  
     natural science and, 115–22, 136–37;  
     realism and, 4–6, 83–84, 112–13, 138–51, 156–57, 167–74, 193n2. *See also* cognition; idealism; natural science; *and specific thinkers*  
 Michelet, K. L., 44  
 mind-brain identity, 5, 35, 90–91  
 Montaigne, Michel de, 59, 156  
 Moore, G. E., 2, 140, 193n2  
 moral theory (of Kant’s), 11–13, 20–21, 23, 65, 141, 146–47, 177n1  
 Morin, Jean-Baptiste, 8  
 mutual determination, 69



natural science:

- constructivist approaches to, 7, 27–28, 52–53;
- Hegel and, 113–33, 150, 191n51;
- Kant on, 8, 25–29, 39, 117–19, 122–23, 130;
- logic and, 153–59;
- mathematics and, 26–27, 31, 123–24, 126–27, 130–33;
- metaphysics of, 136–37;
- new science and, 8, 25–29;
- philosophy of nature and, 9, 76–77, 79–84, 99, 113–22

*Naturphilosophie*, 9, 76–84, 91, 113–30

necessity, 115–16, 121–22, 141–42

neo-Kantianism, 2, 25, 44

new science, 8, 25–29, 90–91. *See also* Descartes, René; Galileo Galilei; natural science; Newton, Isaac; philosophy of nature

Newton, Isaac:

- Hegel on, 8, 28–29, 102, 117–19, 121–34, 140, 191n56;
- Kant's reading of, 8, 25, 27, 29, 39, 117–19, 122–23, 130;
- Kepler and, 124–25, 127–28;
- Maimon and, 52–53

Niethammer, Friedrich Immanuel, 79

Nietzsche, Friedrich, 54

non-Euclidean geometry, 31. *See also* geometry

nothing, 158–59

noumenon:

- Fichte's disposal of, 8, 66–72, 74–75;
- inaccessibility of, 7, 15, 17, 37–38, 81, 168–69;
- subject's freedom and, 20, 65, 73–76, 82, 97;
- transcendental deduction and, 22–24, 36–39. *See also* Fichte, Johann Gottlieb; objects; subjectivity

*Nova dilucidatio* (Kant), 42

objects:

- backward inference and, 7, 11–12, 15, 17, 37–38, 168–69;
- cognition's grasp of, 4–5, 30, 32–36, 59–62, 103, 109–12, 115, 134–59;
- dialectical approaches to, 144–59;
- Fichte's constructivism and, 63–66;
- identity of identity and difference and, 24, 73–76, 95–101, 104;
- objective totality and, 95, 103–4;
- representationalism and, 8, 11–12, 15–21, 23, 34–35, 67–76, 106–7, 169, 172–73

*Only Possible Argument in Support of a Demonstration of the Existence of God* (Kant), 15

*On the Foundation of Philosophical Knowledge* (Reinhold), 46, 48

“On the Possibility of the Form of Philosophy in General” (Schelling), 78

“On the Self as Principle of Philosophy” (Schelling), 78

**(p.201)** *On the World Soul* (Schelling), 82

ontology:

- definitions of, 139;
- double-aspect thesis and, 16–21;
- Fichte's subjectivity and, 67, 73–76;
- Heidegger's, 2, 105;
- identity in difference and, 5–6, 9, 11–12, 34–39, 69–77, 81–84, 88–89, 94–95, 103–4, 109–11, 119–22, 144–51, 163–64;

Kant and, 16–21;  
metaphysical realism and, 5–6, 83–84, 112–13, 138–51, 156–57, 167–74, 193n2;  
ontological difference and, 35;  
Plato and, 5–7, 11–12, 34, 82, 88–89, 101–2, 138, 168, 173–74;  
Schelling on, 88–89

Ott, Walter, 178n6

Parmenides, 4–5, 11–12, 30, 36, 67–68, 103, 137–38, 157, 167–68, 172, 174

*Parmenides* (Plato), 6

Paton, Herbert James, 24, 179n27

Peirce, Charles Sanders, 7

perception:

causal theories of, 17–18, 106;  
Hegel on, 143–44, 152;  
representationalism and, 15–16, 107

Petry, M. J., 113–14

phenomenology:

backward inferences from, 11–12, 15, 17–18, 37–38, 168–69;  
Copernican revolution and, 24–25, 37–38;  
definitions of, 105–6;  
Fichte and, 64, 105–7;  
Hegel and, 64, 104–7, 109–12, 115–16, 120–24, 134, 138–39, 145–51, 161–66;  
Heidegger and, 2, 105

*Phenomenology of Spirit* (Hegel), 9–10, 103, 106–7, 109, 111–12, 115–16, 120–21, 123–24, 134, 138–39, 145–46, 149, 151, 155, 161–62, 165, 188n4

Philonenko, Alexis, 61

*Philosophie Naturalis Principia Mathematica* (Newton). See *Principia* (Newton)

philosophy of art, 9, 76–77, 81–82, 88–89. See also aesthetics

*Philosophy of Art* (Schelling), 88–89

philosophy of nature:

Hegel and, 98–99, 112–22, 124–33, 157–58;  
Schelling and, 76–84, 90–91, 98. See also natural science

*Philosophy of Nature* (Hegel), 10, 113–23, 128, 130–34

physicalism, 5

physics, 119–22

*Physics* (Aristotle), 114

Piaget, Jean, 8, 167, 193n1

Pinkard, Terry, 3

Pippin, Robert, 181n54

Place, U. T., 5

Plato:

cosmology of, 82;  
dialectic and, 154;  
idealism of, 5–7, 11–12, 34, 88–89, 101–2, 138, 168, 173–74;  
Kant on, 3–4, 6, 11, 16–17, 21, 32, 34, 118, 177n1;  
representationalism and, 7, 14–15, 18;  
science and, 83, 116, 172

Platonism, 6, 11, 36

Plotinus, 35

point of indifference, 90, 98

Popper, Karl, 113  
 Port Royal School, 15  
 positivism, 170–71. *See also* Vienna Circle  
 practice (theory and), 64–66, 74–76, 94, 141, 165–66  
 preestablished harmony, 90–91  
*Presentation of My System of Philosophy* (Schelling), 188n5  
*Principia* (Newton), 27, 29, 39, 117, 123  
 principle of sufficient reason, 136  
*Prolegomena* (Kant), 42–43, 51, 94, 106–7, 142–43  
 Protestant principle, 59  
 psychologism, 44, 60, 139, 164  
 Ptolemy, 26  
 Putnam, Hilary, 107, 140  
 Quine, W. V. O., 140, 170  
 rationalism, 11–12, 48–49, 168. *See also* Descartes, René; Wolff, Christian  
 Rawls, John, 8, 172, 177n2  
 realism:  
     epistemology and, 4, 68;  
     Hegel and, 107–8;  
     idealism's fusion with, 90–91;  
     metaphysical, 5–6, 83–84, 112–13, 136–51, 156–57, 167–74, 193n2;  
     scientific, 170–71, 193n2  
 Redding, Paul, 3  
**(p.202)** reflection, 35–36, 74, 86, 89–91, 95–96, 111–12, 160–61, 164  
 Reichenbach, Hans, 140, 171  
 Reid, Thomas, 15  
 Reinhold, Karl Leonhard:  
     Fichte and, 41, 43, 46, 49, 68, 70–71, 157, 161, 190n22;  
     foundationalism of, 50–57, 101–4;  
     Hegel on, 9–10, 44, 47–48, 93, 96, 101–4, 148, 156, 160–63;  
     idealism and, 40–41;  
     on Kant, 1–3, 8, 41–52, 63, 86, 181n2;  
     Maimon on, 51–52, 57;  
     protean nature of, 43, 46–47;  
     Schulze on, 54–57, 161  
*Religion within the Bounds of Reason Alone* (Kant), 46  
 representationalism:  
     Copernican turn and, 29–30;  
     double-aspect thesis and, 8, 15–21;  
     Fichte and, 67–76;  
     Hegel on, 106;  
     identity theories and, 34–35;  
     Kant and, 11–12, 68–69, 107, 169, 172–73;  
     Plato on, 7, 14–15, 168–69;  
     Reinhold and, 46, 49, 52, 54–57;  
     varieties of, 13–16  
*Republic* (Plato), 6–7  
 Rorty, Richard, 8, 140, 170  
*Rules for the Direction of the Mind* (Descartes), 32

Russell, Bertrand, 5, 113, 140  
 Schelling, Friedrich, 3;  
     empiricism of, 83–87;  
     Fichte and, 9, 60, 76–81, 84–85, 87, 90–91, 93–101, 119;  
     Hegel and, 9–10, 77, 79, 92–101, 115, 117, 161, 188n4;  
     idealism and, 1–3, 9, 76–77, 90–91, 176n9, 185n8, 187nn35–36;  
     Kant and, 79, 83–87, 89–91, 142;  
     precociousness of, 58–59, 78;  
     protean nature of, 43, 76–78;  
     Reinhold and, 101, 161, 188n5  
 Schiller, Friedrich, 41, 181n2  
 Schlegel, Friedrich, 84, 187n24  
 Schleiden, Matthias Jacob, 113  
*Scholium* (Newton), 129  
 Schopenhauer, Arthur, 1–2, 131, 175n2  
 Schulze, G. E., 1–2, 40, 54–57  
 science:  
     causality and, 97–98;  
     Hegel on, 113–33, 153–59. *See also* logic; natural science; new science  
*Science of Logic* (Hegel), 44, 101–2, 152, 161  
 self-consciousness, 35–36, 89–91, 95–96, 111–12, 164  
 Sellars, Wilfrid, 109–10, 140, 170  
 sense data, 15–16, 22, 35–36, 123–24, 140, 156–57  
 skepticism:  
     critical philosophy and, 44, 169, 173;  
     definitions of, 54–55;  
     Descartes and, 22–23;  
     dogmatic, 48, 138–39;  
     Fichte's subjectivity and, 68–69;  
     Hegel and, 141–43, 153–55;  
     Hume and, 23, 124, 141–44;  
     Pyrrhonian, 54–55, 156. *See also* constructivism (cognitive)  
 Smart, J. J. C., 5  
 Socrates, 154  
 speculative philosophy:  
     epistemology and, 22;  
     Fichte and, 96–97;  
     Hegel on, 9–10, 96–97, 100, 102–4, 134–36, 151–59;  
     Kant on, 20, 94–95;  
     Schelling and, 79–80  
 Spinoza, Benedict de, 5, 9, 18, 76, 82, 84–92, 98  
 spontaneity, 74  
*Statement of My System* (Schelling), 86  
 Stone, Abraham, 114  
 Strawson, P. F., 2  
 striving, 97. *See also* becoming; teleology  
 subjectivity:  
     activity of, 22–23, 34–39, 66–76, 79, 90, 105–6, 134–36, 142–51;  
     backward inference and, 11–12, 15, 17–18, 37–38, 168–69;

- Copernican revolution and, 25–28;
- deduction of, 22–24, 36–39;
- Fichte on, 8, 58, 66–72, 105;
- freedom and, 20, 65, 73–76, 82;
- Hegel on, 95–96, 108–12, 114–22, 164–66;
- identity and, 70–76, 87–91, 104, 119–22;
- Kant on, 22–24;
- logic and, 152–59;
- nature and, 90–91;
- Schelling on, 78–80;
- transcendental subject and, 36–39, 60, 67, 69

sublation, 149, 153–59

*System of Transcendental Idealism* (Schelling), 9, 58–59, 78–80, 82, 84–91, 94

teleology, 88–89, 97, 118, 157–59

theory (vs. practice), 63–66, 74–76, 88–89, 94, 141, 165–66

**(p.203)** *Theory of Colors* (Goethe), 131–32

thinking. *See* cognition

thought determinations, 116, 137, 144, 150–51, 160–62

*Timaeus* (Plato), 82–83, 114

transcendental deduction, 8, 22–24, 36–39, 60, 121

truth. *See* epistemology

understanding:

- Fichte on, 73–75;
- Hegel on, 139, 142–47, 150–57;
- Kant on, 20, 35–37, 109, 136, 144–45, 147, 150–52;
- Locke on, 15;
- Schelling on, 79;
- skepticism and, 55;
- Wolff on, 119

universal, the, 12–13, 39, 124, 140–42, 145, 149, 152–59

*Universal Natural History* (Kant), 29

Vaihinger, Hans, 17

Vienna Circle, 170–71

Vygotsky, Lev, 8

whole, the:

- circularity and, 9–10, 48–63, 145–46, 160–66;
- Hegel on, 102, 121–22, 134–36, 138–39, 145–46, 154–59, 162–66;
- Kant's work and, 3, 13

*Wissenschaftslehre* (Fichte), 40, 43, 47, 61–62, 73, 81, 83, 87–89, 94–95, 105, 188n5

Wittgenstein, Ludwig, 8, 140